```
=> fil medline

FILE 'MEDLINE' ENTERED AT 12:31:41 ON 19 AUG 1999

 FILE LAST UPDATED: 16 AUG 1999 (19990816/UP).  FILE COVERS 1960 TO DATE.

 MEDLINE has been reloaded to reflect the annual MeSH changes made  by
 the National Library of Medicine for 1999.  Enter HELP RLOAD for details.

 OLDMEDLINE,  data from 1960 through 1965 from the Cumulated Index
 Medicus (CIM), has been added to MEDLINE. See HELP CONTENT for details.

 Left, right, and simultaneous left and right truncation are available in the
 Basic Index.  See HELP SFIELDS for details.

 THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE
 SUBSTANCE IDENTIFICATION.

=> d his


     (FILE 'MEDLINE' ENTERED AT 12:11:32 ON 19 AUG 1999)
                DEL HIS Y
L1              8 S MULTIPLE(2W)  BINDING (2W) (ARRAY# OR IMMUNOASSAY# OR
ASSAY#)
L2         195965 S IMMUNOASSAY+NT/CT
L3              3 S L1 AND L2
L4         209308 S FLUORESC?
L5              1 S L1 AND L4
L6              4 S L3 OR L5
L7              1 S ANALYTE(2W)  BIND? (2W) PARTNER#
                E FLUOROIMMUNOASSAY/CT
                E E3+ALL
                E E49+ALL
L8          71599 S FLUORESCENT ANTIBODY TECHNIQUE+NT/CT
L9              0 S L8 AND L1
L10             0 S MULTIPLE (2W) BIND(2W) PARTNER?
L11            51 S PROTEIN ARRAY?
L12         15919 S 11 AND (L2 OR L8)
L13             8 S L11 AND (L2 OR L8)
L14             4 S L13 AND L4
L15         12368 S BINDING (2W) (ASSAY# OR IMMUNOASSAY#)
L16           731 S L15 AND L4
L17          4030 S ANALYTE#
L18             3 S L16 AND L17
L19            43 S L16 AND  SOLID PHASE#
L20           237 S BINDING PARTNER#
L21             0 S L20 AND L19
L22             0 S L16 AND L21
L23             9 S LATERAL FLOW
L24             0 S L23 AND (L2 OR L8)
L25             0 S L15 AND L23
L26        145603 S SUBSTRATE#
L27          3460 S L26 AND (FILM OR SHEET# OR STRIP# OR PARTICLE# OR
MICROTITER
L28         30421 S (POLYCARBONATE OR POLYSTYRENE OR POLYETHYLENE OR
POLYPROPYLEN
```

```
L29         1438 S L26 AND L28
L30         4774 S L29 OR L27
L31           65 S L2 AND  L30 AND L4
L32           12 S L31 AND SOLID
L33            5 S L32 AND (L17 OR L20 OR BIND? )
L34           16 S L6 OR L14 OR L18 OR L33

     FILE 'MEDLINE' ENTERED AT 12:31:41 ON 19 AUG 1999

=> d bib ab ct 1-16


L34  ANSWER 1 OF 16  MEDLINE
AN   1998436975     MEDLINE
DN   98436975
TI   Simultaneous multiple analyte detection using
     fluorescent peptides and capillary isoelectric focusing.
AU   Cruickshank K A; Olvera J; Muller U R
CS   Vysis Inc., Downers Grove, IL 60515, USA.
SO   JOURNAL OF CHROMATOGRAPHY. A, (1998 Aug 21) 817 (1-2) 41-7.
     Journal code: BXJ. ISSN: 0021-9673.
CY   Netherlands
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
FS   Priority Journals
EM   199901
EW   19990104
AB   Analyte-specific detection based on the isoelectric point of the
     detection moiety is a new concept that is under investigation at Vysis.
We
     have developed methods for the synthesis of of fluorescent
     synthetic peptides that can be conjugated to bioanalytes such as nucleic
     acids and antibodies, processed in a hybridization or binding
     assay, and then chemically released prior to detection by
     capillary isoelectric focusing (cIEF)-laser-induced fluorescence
     (LIF) detection. A two-step cIEF method in coated capillaries using salt
     mobilization has been used that produces high peak efficiencies and good
     assay reproducibility. The concentration by focusing aspect of cIEF,
which
     allows for the entire capillary to be filled with sample, enables
     detection limits in the pM as opposed to sub-nM level for conventional
     capillary electrophoresis (CE)-LIF. The simultaneous multiple detection
of
     eleven different focusing entities has been achieved.
CT   Check Tags: Support, Non-U.S. Gov't
      Amino Acid Sequence
     *Electrophoresis, Capillary: MT, methods
     *Isoelectric Focusing: MT, methods
     *Peptides: AN, analysis
      Reference Standards
      Reproducibility of Results
      Spectrometry, Fluorescence

L34  ANSWER 2 OF 16  MEDLINE
AN   1998401838     MEDLINE
DN   98401838
TI   Mass-sensing, multianalyte microarray immunoassay with imaging
detection.                                                          Page 2
```

AU Silzel J W; Cercek B; Dodson C; Tsay T; Obremski R J
CS Beckman Coulter, Inc., Brea, CA 92822-8000, USA.. jsilzel@beckman.com
SO CLINICAL CHEMISTRY, (1998 Sep) 44 (9) 2036-43.
Journal code: DBZ. ISSN: 0009-9147.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199811
EW 19981103
AB Miniaturization of ligand **binding assays** may reduce costs by decreasing reagent consumption, but it is less apparent that miniaturized assays can simultaneously exceed the sensitivity of macroscopic techniques by **analyte** "harvesting" to exploit the total **analyte** mass available in a sample. Capture reagents (avidin or antibodies) immobilized in 200-microm diameter zones are shown to substantially deplete **analyte** from a liquid sample during a 1-3-h incubation, and the assays that result sense the total **analyte** mass in a sample rather than its concentration. Detection of as few as 10(5) molecules of **analyte** per zone is possible by **fluorescence** imaging in situ on the solid phase using a near-infrared dye label. Single and multianalyte mass-sensing sandwich array assays of the IgG subclasses show the sensitivity and specificity of ELISA methods but use less than 1/100 the capture antibody required by the 96-well plate format.
CT Check Tags: Human
Avidin
Biotin: CH, chemistry
Fluorescence
Fluorescent Dyes
IgG: AN, analysis
Image Enhancement
*Immunoassay: MT, methods
*Miniaturization
Sensitivity and Specificity

L34 ANSWER 3 OF 16 MEDLINE
AN 96379711 MEDLINE
DN 96379711
TI Ultra-specific immunoassays for small molecules: roles of wash steps and multiple binding formats.
AU Self C H; Dessi J L; Winger L A
CS Department of Clinical Biochemistry, Royal Victoria Infirmary and Associated Hospitals, NHS Trust, The University of Newcastle upon Tyne, UK.
SO CLINICAL CHEMISTRY, (1996 Sep) 42 (9) 1527-31.
Journal code: DBZ. ISSN: 0009-9147.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199612
AB New immunometric forms of immunoassay are much more flexible to use than competitive-format immunoassays for small molecular analytes. An example of the utility of this flexibility is the ability to wash the capture

antibody after it has been exposed to analyte but before addition of the labeled reagent. This simple maneuver has a large impact on the specificity obtained from already highly specific assays. We also show that specificity can be further increased by means of our **multiple binding assay** approach, in which the final reading reflects analyte binding to two different primary capture monoclonal antibodies.

CT Check Tags: Support, Non-U.S. Gov't
Antibodies, Monoclonal
Digitoxigenin: AN, analysis
Digitoxin: AN, analysis
Digoxigenin: AN, analysis
Digoxin: AA, analogs & derivatives
Digoxin: AN, analysis
***Immunoassay: MT, methods**
Immunoassay: ST, standards
Sensitivity and Specificity
Strophanthidin: AA, analogs & derivatives
Strophanthidin: AN, analysis

L34 ANSWER 4 OF 16 MEDLINE
AN 94362709 MEDLINE
DN 94362709
TI A **microtiter plate** assay for determining apolipoprotein E genotype and discovery of a rare allele.
AU Livak K J; Hainer J W
CS Research & Development Division, Du Pont Merck Pharmaceutical Company, Wilmington, Delaware 19801.
SO HUMAN MUTATION, (1994) 3 (4) 379-85.
Journal code: BRD. ISSN: 1059-7794.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199412
AB Genotype determination using the **solid**-phase minisequencing method of Syvanen et al. (1990, 1993) has been adapted for use with **fluorescein**-labeled dideoxynucleotides (F-ddNTPs). PCR is performed using one biotinylated primer and one unbiotinylated primer. The biotinylated products are captured in streptavidin-coated microtiter wells. Following removal of nonbiotinylated strands with NaOH, the bound strands are hybridized with a primer adjacent to the polymorphic site being tested. Using T7 DNA polymerase, the primer is extended using one F-ddNTP in the presence of the other three unlabeled ddNTPs. Incorporation of the F-ddNTP is detected by **binding** antifluorescein antibody conjugated with alkaline phosphatase followed by incubation with a chromogenic **substrate**. This assay was used to determine APOE genotypes for 75 subjects. The APOE genotypes were also determined using a method involving the incorporation of mobility-shifting nucleotide analogs (Livak et al., 1992). Investigation of the one discrepancy between the two methods revealed that one subject carries a rare APOE allele that has a 3 bp deletion.

CT Check Tags: Human; Male
Alleles
*Apolipoproteins E: GE, genetics
Bacterial Proteins
Base Sequence
Biotin
Deoxyribonucleotides: CH, chemistry
DNA Primers
Enzyme-Linked Immunosorbent Assay
Fluoresceins
Fluoroimmunoassay: MT, methods
Genotype
Molecular Sequence Data
Polymerase Chain Reaction
*Polymorphism (Genetics)
*Sequence Analysis, DNA: MT, methods
Titrimetry: MT, methods

L34 ANSWER 5 OF 16 MEDLINE
AN 94057663 MEDLINE
DN 94057663
TI Enzyme-linked immunosorbent assay and flow cytometric methods to screen hybridoma culture supernatants for antibodies to bovine neutrophil surface antigens, and monoclonal antibody production and characterization.
AU Salgar S K; Paape M J; Alston-Mills B
CS Department of Animal Science, University of Maryland, College Park 20742..
SO AMERICAN JOURNAL OF VETERINARY RESEARCH, (1993 Sep) 54 (9) 1415-25. Journal code: 40C. ISSN: 0002-9645.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199402
AB Enzyme-linked immunosorbent assay and flow cytometric methods to screen hybridoma culture supernatants for antibodies to bovine neutrophils (surface antigen-specific) were optimized. Sensitivity of the 2 methods was compared. A panel of 14 murine monoclonal antibodies (MAB) to surface antigens of bovine polymorphonuclear neutrophilic leukocytes (neutrophils) was produced by hybridoma technology, and their isotypes were determined by whole-cell ELISA. Monoclonal antibody reactivity with neutrophils, eosinophils, and lymphocytes isolated on phosphate-buffered saline solution and on Ficoll-sodium diatrizoate were compared. Biochemical characterization of antigens recognized by MAB was performed by immunoblot analysis. Neutrophil plasma membranes were isolated on sucrose gradients (20, 32, and 50%) and purified for polypeptide characterization. Neutrophil surface proteins were characterized by external labeling with 125I. The flow cytometric method was proven to be more sensitive and rapid than ELISA to screen hybridoma supernatants. This method allowed light-scatter gating of live neutrophil populations for analysis, which eliminated nonspecific **binding** of antibodies to contaminating cells and dead neutrophils. The optimal conditions for flow cytometric analyses were 5 x 10(5) neutrophils and 1 micrograms of

fluorescein-labeled F(ab')2/assay as the second antibody. The optimal conditions for hybridoma screening by ELISA were neutrophil concentration of 2.5 x 10(5)/well, using a 96-well **polystyrene** microtitration plate as **solid** support, and 2,2'-azino-di[3-ethyl-benzthiazoline sulfonate (6)] with H2O2 as the chromatogenic **substrate**. Tissue culture plates as **solid** support and 3,3', 5,5'-tetramethyl benzidine, with H2O2 as the chromogenic **substrate**, were equally as sensitive. Panel MAB reacted differently with neutrophils, eosinophils, and lymphocytes. Isolation of these cells from blood on Ficoll-sodium diatrizoate generally did not alter MAB reactivity. Coomassie blue-stained gels of neutrophil plasma membrane proteins contained about 25 polypeptide bands, 13 of which were major bands. Autoradiography revealed about 11 surface proteins, 5 of which were heavily labeled with 125I. Monoclonal antibody S7G8 identified a 65-kd protein and MAB S8G10 identified 65- and 70-kd proteins. On the basis of molecular weight, MAB S7G8 and S8G10 are comparable to human CD15, CD16, and CD64 molecules. The MAB generated in this study are potential candidates to discern bovine neutrophil function and heterogeneity.

CT Check Tags: Animal; Female
*Antibodies: AN, analysis
Antibodies, Monoclonal: BI, biosynthesis
Antibodies, Monoclonal: CH, chemistry
Antigens, Surface: IM, immunology
Cattle
Enzyme-Linked Immunosorbent Assay: MT, methods
***Enzyme-Linked Immunosorbent Assay: VE, veterinary**
Flow Cytometry: MT, methods
*Flow Cytometry: VE, veterinary
*Hybridomas: IM, immunology
Leukocytes: IM, immunology
Mice
Mice, Inbred BALB C
Neutrophils: IM, immunology
Sensitivity and Specificity

L34 ANSWER 6 OF 16 MEDLINE
AN 94016589 MEDLINE
DN 94016589
TI Distribution of surface-exposed and non-accessible amino acid sequences among the two major structural domains of the S-layer protein of Aeromonas salmonicida.
AU Doig P; McCubbin W D; Kay C M; Trust T J
CS Department of Biochemistry and Microbiology, University of Victoria, BC, Canada..
SO JOURNAL OF MOLECULAR BIOLOGY, (1993 Oct 20) 233 (4) 753-65.
Journal code: J6V. ISSN: 0022-2836.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Cancer Journals; Priority Journals
EM 199401
AB The tetragonally arranged crystalline surface **protein array** (A-layer) of the fish pathogenic bacterium Aeromonas salmonicida is a virulence factor. Circular dichroism studies in the presence or absence of 0.1% sodium dodecyl sulfate showed that the

secondary structure of A-protein, and its 39,439 molecular weight amino-terminal trypsin-resistant peptide, were altered. In both cases alpha-helix was increased significantly at the expense of beta-structure when SDS was added. Western and dot immunoblotting, immuno-microscopy and enzyme-linked immunosorbent assay with monospecific polyclonal antiserum and eight monoclonal antibodies specific for epitopes exposed on the surface of native A-layer showed that the 481 residue A-protein subunit and the surface of A-layer were conserved antigenically. Mimeotope analysis of nonapeptides representing the sequence of A-protein allowed identification of 146 residues in presumed linear epitopes accessible on the surface of A-layer. Inaccessible or non-epitopic residues accounted for 70% of the protein. The majority of inaccessible residues were in the N-terminal 301 residues of A-protein. Dispersed among these were 65 surface-accessible residues in five linear epitope clusters illustrating the complex folding of this major structural domain of A-protein. The C-terminal 180 residues carried fewer linear epitopes but contained the major region of A-layers surface-accessible sequence, including four linear epitopes in predominantly hydrophobic sequence. Four A-layer surface-binding monoclonal antibodies also bound to this minor structural domain, although the epitopes of only two were identified by mimeotope analysis. The epitopes of six A-layer surface-binding monoclonals could not be identified, suggesting that A-layer may also contain conformation dependent surface epitopes.

CT Check Tags: Animal; Human; Support, Non-U.S. Gov't
*Aeromonas: CH, chemistry
Amino Acid Sequence
*Antigens, Bacterial: CH, chemistry
*Bacterial Outer Membrane Proteins: CH, chemistry
Blotting, Western
Circular Dichroism
Enzyme-Linked Immunosorbent Assay
Epitopes: CH, chemistry
Fluorescent Antibody Technique
Microscopy, Electron
Molecular Sequence Data
Molecular Weight
Protein Structure, Secondary
Trypsin
Ultracentrifugation

L34 ANSWER 7 OF 16 MEDLINE
AN 92219204 MEDLINE
DN 92219204
TI Protein polymorphism and evolution in the genus Tetrahymena.
AU Williams N E; Honts J E; Dress V M
CS Department of Biology, University of Iowa, Iowa City 52242..
NC GM40273 (NIGMS)
GM07228 (NIGMS)
SO JOURNAL OF PROTOZOOLOGY, (1992 Jan-Feb) 39 (1) 54-8.
Journal code: JT3. ISSN: 0022-3921.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199207
AB Immunoblotting tests involving cytoskeletal **protein arrays** and **fluorescence** microscopical examinations of

whole cells using monoclonal antibody 424A8 gave substantially different results in three evolutionary subgroups within the genus Tetrahymena. These responses are described and some implications of the evolutionary divergence indicated in this ciliated protozoan are discussed.

CT Check Tags: Animal; Comparative Study; Support, U.S. Gov't, P.H.S.
Antibodies, Monoclonal
Electrophoresis, Polyacrylamide Gel
*Evolution
Immunoblotting
Microscopy, Fluorescence
*Polymorphism (Genetics)
*Protozoan Proteins: GE, genetics
*Tetrahymena: GE, genetics

L34 ANSWER 8 OF 16 MEDLINE
AN 91100424 MEDLINE
DN 91100424
TI ICAM-1 (CD54): a counter-receptor for Mac-1 (CD11b/CD18).
AU Diamond M S; Staunton D E; de Fougerolles A R; Stacker S A; Garcia-Aguilar J; Hibbs M L; Springer T A
CS Committee on Cell and Developmental Biology, Harvard Medical School, Boston, Massachusetts 02115..
NC T32GM07753-11 (NIGMS)
CA31799 (NCI)
SO JOURNAL OF CELL BIOLOGY, (1990 Dec) 111 (6 Pt 2) 3129-39.
Journal code: HMV. ISSN: 0021-9525.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199104
AB While the leukocyte integrin lymphocyte function-associated antigen (LFA)-1 has been demonstrated to bind intercellular adhesion molecule (ICAM)-1, results with the related Mac-1 molecule have been controversial.
We have used **multiple** cell **binding assays**, purified Mac-1 and ICAM-1, and cell lines transfected with Mac-1 and ICAM-1 cDNAs to examine the interaction of ICAM-1 with Mac-1. Stimulated human umbilical vein endothelial cells (HUVECs), which express a high surface density of ICAM-1, bind to immunoaffinity-purified Mac-1 adsorbed to artificial substrates in a manner that is inhibited by mAbs to Mac-1 and ICAM-1. Transfected murine L cells or monkey COS cells expressing human ICAM-1 bind to purified Mac-1 in a specific and dose-dependent manner; the attachment to Mac-1 is more temperature sensitive, lower in avidity, and blocked by a different series of ICAM-1 mAbs when compared to LFA-1. In a reciprocal assay, COS cells cotransfected with the alpha and beta chain cDNAs of Mac-1 or LFA-1 attach to immunoaffinity-purified ICAM-1 substrates; this adhesion is blocked by mAbs to ICAM-1 and Mac-1 or LFA-1. Two color **fluorescence** cell conjugate experiments show that neutrophils stimulated with fMLP bind to HUVEC stimulated with lipopolysaccharide for 24 h in an ICAM-1-, Mac-1-, and LFA-1-dependent fashion. Because cellular and purified Mac-1 interact with cellular and purified ICAM-1, we conclude that ICAM-1 is a counter receptor for Mac-1 and that this receptor pair is responsible, in part, for the adhesion

between stimulated neutrophils and stimulated endothelial cells.
CT Check Tags: Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
Antibodies, Monoclonal: DU, diagnostic use
*Antigens, CD: PH, physiology
Cell Adhesion: PH, physiology
*Cell Adhesion Molecules: PH, physiology
Chromatography, Affinity
Endothelium, Vascular: ME, metabolism
Lymphocyte Function-Associated Antigen-1: IP, isolation & purification
Lymphocyte Function-Associated Antigen-1: ME, metabolism
Macrophage-1 Antigen: IP, isolation & purification
*Macrophage-1 Antigen: ME, metabolism
Neutrophils: ME, metabolism
*Receptors, Immunologic
Transfection

L34 ANSWER 9 OF 16 MEDLINE
AN 88225471 MEDLINE
DN 88225471
TI Measurement of urine human growth hormone levels by ultra-highly sensitive
enzyme immunoassay.
AU Hattori N; Kato Y; Murakami Y; Koshiyama H; Inoue T; Imura H
CS Department of Medicine, Kyoto University Faculty of Medicine, Japan..
SO NIPPON NAIBUNPI GAKKAI ZASSHI. FOLIA ENDOCRINOLOGICA JAPONICA, (1988 Feb 20) 64 (2) 78-92.
Journal code: EZV. ISSN: 0029-0661.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA Japanese
FS Priority Journals
EM 198809
AB A highly sensitive enzyme immunoassay (EIA) for measurement of urine hGH was set up by a modification of the method of Hashida and Ishikawa, which was a sandwich enzyme immunoassay using anti-hGH antibody coated **polystyrene** balls and anti-hGH antibody-peroxidase conjugate. Anti-hGH serum was obtained in rabbits by subcutaneous injections of hGH emulsified in complete Freund's adjuvant. In order to reduce non-specific **binding** to the **solid** phase, anti-hGH IgG was precipitated from rabbit serum followed by digestion to F(ab')2 and affinity purification. Fab'-peroxidase conjugate was produced by maleimide method. The assay procedure was as follows. 1. 100 microliters of urine samples or hGH standard were incubated with anti-hGH IgG coated **polystyrene** balls. 2. **Polystyrene** balls were then incubated with Fab'-peroxidase conjugate. **Polystyrene** balls were carefully washed three times in saline after incubation with Fab'-peroxidase conjugate, which reduced contamination and non-specific **binding**. 3. Peroxidase activity bound to the balls was assayed by enzyme reaction using 3(p-hydroxyphenyl) propionic acid as a **substrate**, and **fluorescence** intensity was measured by a spectrofluorophotometer (Shimadzu RF-540). Reducing the energy of excitation by setting the slit width of the spectrofluorophotometer at 2nm made it possible to gain stable **fluorescence**. The minimum detectable quantity of hGH was 30fg/tube in the assay, so that the detection limit was 0.3 pg/ml when 100 microliters of urine samples were

used. Coefficient of intra- and inter-assay variation was 6.0% and 8.6%, respectively. The recovery was 98.8 +/- 2.8 (+/- SE) on average. Multiple dilution of acromegalic urine and urine after insulin injection produced dose-response curves parallel to those of the standards. Urine hGH levels in acromegalic patients were significantly greater than those in normal subjects. These findings indicate that sensitive EIA of urine hGH is potentially useful for evaluating the pituitary function.

CT Check Tags: Human
Chromatography, Affinity
English Abstract
***Immunoenzyme Techniques**
Preservation, Biological
Reference Values
*Somatotropin: UR, urine
Temperature

L34 ANSWER 10 OF 16 MEDLINE
AN 87166725 MEDLINE
DN 87166725
TI High frequency of autoantibodies bearing cross-reactive idiotopes among hybridomas using VH7183 genes prepared from normal and autoimmune murine strains.
AU Bellon B; Manheimer-Lory A; Monestier M; Moran T; Dimitriu-Bona A; Alt F; Bona C
NC AG/A1271601 (NIA)
AI-20047 (NIAID)
CA 21112-09 (NCI)
SO JOURNAL OF CLINICAL INVESTIGATION, (1987 Apr) 79 (4) 1044-53.
Journal code: HS7. ISSN: 0021-9738.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals
EM 198707
AB Hybridomas obtained by in vitro stimulation with lipopolysaccharides (LPS) of BALB/c, MRL/lpr, and NZB splenocytes were selected for expression of VH7183 by hybridization using slot blotting. Northern blot analysis showed that the majority of hybrids produce a full length message complementary to the VH7183 probe. The frequency of VH7183 hybridomas was significantly higher in NZB mice as compared with BALB/c mice. Using **multiple binding assays**, 60% of the total antibodies encoded by VH7183 were specific for self-epitopes. Finally, the vast majority express cross-reactive idiotypes borne by autoantibodies of various specificities.
CT Check Tags: Animal; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
*Autoantibodies: AN, analysis
*Autoimmune Diseases: GE, genetics
Electrophoresis, Polyacrylamide Gel
Enzyme-Linked Immunosorbent Assay
*Hybridomas: IM, immunology
*Immunoglobulin Idiotypes: AN, analysis
Mice
Mice, Inbred BALB C
*Mice, Inbred Strains: GE, genetics

Mice, Inbred Strains: IM, immunology

L34 ANSWER 11 OF 16 MEDLINE
AN 87109748 MEDLINE
DN 87109748
TI The ultrastructural location of C-protein, X-protein and H-protein in rabbit muscle.
AU Bennett P; Craig R; Starr R; Offer G
SO JOURNAL OF MUSCLE RESEARCH AND CELL MOTILITY, (1986 Dec) 7 (6) 550-67. Journal code: HSN. ISSN: 0142-4319.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198705
AB Purified antibodies to the thick filament accessory proteins, C-protein, X-protein and H-protein, have been used to label fibres of three rabbit muscles, psoas (containing mainly fast white fibres), soleus (containing mainly slow red fibres) and plantaris (a muscle of mixed fibre type) and their location has been examined by electron microscopy. These accessory proteins are present on one or more of a set of eleven transverse stripes about 43 nm apart that have been observed previously in each half A-band. Each protein has a limited set of characteristic distributions. H-protein is present on stripe 3 (counting from the M-line) in the majority of psoas fibres but is absent in soleus and plantaris muscle. C-protein can occur on stripes 4-11 (the commonest pattern seen in psoas); on stripes 5-11 (in psoas and plantaris); on stripes 3 together with stripes 5-11 (in plantaris); or on none (in red fibres of all three muscles). X-protein can occur on stripes 3-11 in the red fibres of all three muscles; on stripe 4 only (in psoas and plantaris); on stripes 3 and 4 (in psoas and plantaris) or on none. Stripes labelled with anti-X are wider than those labelled with anti-C and consist of a doublet with an internal spacing of 16 nm. The patterns for the three accessory proteins, while overlapping, are in no case identical; this suggests the proteins do not simply substitute for one another. The precise axial positions of the anti-C labelled stripes differ from those of the anti-X stripes; the anti-X stripes lie about 8-9 nm further from the M-line than the corresponding anti-C stripes. This implies that the inner member of an X-protein doublet lies in a very similar position to a C-protein stripe. The anti-H labelled stripe seen in most psoas fibres lies 14 nm nearer the M-line than stripe 3 of the anti-X labelled array in psoas red fibres and is staggered from a continuation of the C-**protein array** by about 4 nm. The labelling patterns were constant within a fibre and suggest a very precise assembly mechanism. The number of classes of fibre, as defined by the accessory proteins present and their arrangement, exceeds the number of fibre types presently recognized.
CT Check Tags: Animal
Chickens
Fluorescent Antibody Technique

Microscopy, Electron
*Muscle Proteins: AN, analysis
Muscle Proteins: IM, immunology
*Muscles: AN, analysis
Muscles: UL, ultrastructure
Rabbits

L34 ANSWER 12 OF 16 MEDLINE
AN 87008636 MEDLINE
DN 87008636
TI A model study of the use of monoclonal antibodies in capture enzyme immunoassays for antigen quantification exploiting the epitope map of tick-borne encephalitis virus.
AU Heinz F X; Tuma W; Guirakhoo F; Kunz C
SO JOURNAL OF BIOLOGICAL STANDARDIZATION, (1986 Apr) 14 (2) 133-41. Journal code: HJD. ISSN: 0092-1157.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198701
AB On the basis of an epitope model, capture enzyme immunoassay systems using monoclonal antibodies have been devised for the detection and quantification of Tick-borne encephalitis virus and compared with a reference system employing polyclonal sera. Monoclonal antibodies were used both as capture and detector antibodies, their suitability depending primarily on their avidity and intrinsic background activity. A considerable increase in sensitivity was achieved by combining antibodies to different non-overlapping epitopes. Biotinylation of the detector antibodies allowed the construction of **multiple** site simultaneous **binding assays**. Furthermore the use of monoclonal antibodies of defined serological specificity made virus type identification possible. This assay can therefore be used as a rapid 'test of identity' as required during the manufacture of viral vaccines.
CT Check Tags: Animal; Comparative Study
*Antibodies, Monoclonal: DU, diagnostic use
Antibody Affinity
*Antigens, Viral: AN, analysis
Binding Sites, Antibody
*Cysteine Proteinases: BL, blood
Encephalitis Viruses, Tick-Borne: IM, immunology
*Encephalitis Viruses, Tick-Borne: IP, isolation & purification
*Epitopes
Guinea Pigs
Immunization
***Immunoenzyme Techniques**
Mice
Rabbits
Viral Vaccines: IM, immunology

L34 ANSWER 13 OF 16 MEDLINE
AN 86299038 MEDLINE
DN 86299038
TI A highly sensitive immunoenzymometric assay involving "common-capture" **particles** and membrane filtration.

AU Kang J; Kaladas P; Chang C; Chen S; Dondero R; Frank A; Huhn S; Lisi P; Monchnal D; Nasser J; et al
SO CLINICAL CHEMISTRY, (1986 Sep) 32 (9) 1682-6.
Journal code: DBZ. ISSN: 0009-9147.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 198612
AB This highly sensitive immunoenzymometric method involves monoclonal antibodies, a common-capture microsphere, and a rapid, membrane-filtration separation step. The common-capture **solid** phase is monoclonal anti-**fluorescein** antibody convalently attached to 6.5 micron-diameter latex **particles**. In sandwich-type assays for large-molecule **analytes**, the capture antibody is conjugated with **fluorescein** isothiocyanate and the probe antibody is conjugated with beta-galactosidase (EC 3.2.1.23). In competitive assays for small **analytes**, the **analyte**-beta-galactosidase conjugate competes with the **analyte** in the clinical samples for the **fluoresceinated** capture antibody. After simultaneous incubation of the reagents for 2 h, the bound and unbound reagents are separated by filtration through the bottom of each well of a 96-well plate. **Substrate** (4-methylumbelliferyl-beta-D-galactopyranoside) is then added to the wells, and the rate of product formation is determined kinetically for 12 min. The rate is proportional to the concentration of **analyte** in the sandwich assays and inversely proportional in the competitive assays. The assay results for choriogonadotropin, thyrotropin, digoxin, and thyroxin show the assay to be sensitive, rapid, and applicable to any size **analyte**. With this system, several different sandwich and (or) competitive-type assays can be performed simultaneously on the same plate.
CT Check Tags: Human
beta-Galactosidase: ME, metabolism
Antibodies, Monoclonal
Digoxin: AN, analysis
Filtration
Fluoresceins
Gonadotropins, Chorionic: AN, analysis
***Immunoenzyme Techniques**
Methods
Radioimmunoassay
Thiocyanates
Thyrotropin: AN, analysis
Thyroxine: AN, analysis

L34 ANSWER 14 OF 16 MEDLINE
AN 85283118 MEDLINE
DN 85283118
TI A highly sensitive immunoassay system involving antibody-coated tubes and liposome-entrapped dye.
AU O'Connell J P; Campbell R L; Fleming B M; Mercolino T J; Johnson M D; McLaurin D A
SO CLINICAL CHEMISTRY, (1985 Sep) 31 (9) 1424-6.
Journal code: DBZ. ISSN: 0009-9147.
CY United States

DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 198512
AB In this colorimetric immunoassay for digoxin, large, unilamellar phospholipid vesicles approximately 0.2 micron in diameter are loaded with high concentrations of Sulforhodamine B. Digoxigenin coupled to phosphatidylethanolamine, incorporated into the lipid formulation, confers immunological specificity. The liposomes are then used as tracers in simple competitive-**binding immunoassays** with antibody-coated tubes. Results are amplified by 10(3) to 10(4) of what could be achieved with one label group attached to each hapten, so that the results can be read spectrophotometrically. The stability of the liposomes is excellent. The method should be applicable to measuring a wide variety of **analytes**.
CT Check Tags: Human
Antibody Affinity
Binding, Competitive
Colorimetry
Digoxigenin
Digoxin: BL, blood
***Fluorescent Dyes**
*Immunoassay: MT, methods
*Liposomes
Phosphatidylethanolamines
*Rhodamines
*Xanthenes

L34 ANSWER 15 OF 16 MEDLINE
AN 84185417 MEDLINE
DN 84185417
TI Structural and immunochemical homogeneity of Aeromonas salmonicida lipopolysaccharide.
AU Chart H; Shaw D H; Ishiguro E E; Trust T J
SO JOURNAL OF BACTERIOLOGY, (1984 Apr) 158 (1) 16-22.
Journal code: HH3. ISSN: 0021-9193.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198408
AB Sodium dodecyl sulfate-polyacrylamide gel electrophoresis was used to analyze the lipopolysaccharides of typical and atypical strains of the fish pathogen Aeromonas salmonicida. 32P intrinsically radiolabeled lipopolysaccharide in sarcosinate-extracted outer membrane preparations, lipopolysaccharide stained by silver in proteinase K-digested outer membrane preparations and whole cell lysates, as well as purified lipopolysaccharide, displayed O-polysaccharide chains which were unusually homogeneous with respect to chain length. Chemical analysis further revealed that the sugar composition of the smooth lipopolysaccharide purified from three typical strains was very similar. Immunoblotting and immunofluorescent staining with both polyclonal and monoclonal antibody showed that the O-polysaccharide chains were strongly immunogenic and were

antigenically cross-reactive on typical and atypical strains from diverse origins. Immunofluorescence analysis and phage binding studies demonstrated that a number of these O-polysaccharide chains traversed the surface **protein array** of virulent strains of A. salmonicida and were exposed on the cell surface.

CT Check Tags: Support, Non-U.S. Gov't
*Aeromonas: IM, immunology
Antibodies, Monoclonal: IM, immunology
Antigens, Surface: AN, analysis
Carbohydrates: AN, analysis
Cell Membrane: IM, immunology
Cross Reactions
Electrophoresis, Polyacrylamide Gel
Fluorescent Antibody Technique
*Lipopolysaccharides: AN, analysis
Lipopolysaccharides: IM, immunology
Lipopolysaccharides: IP, isolation & purification

L34 ANSWER 16 OF 16 MEDLINE
AN 83280702 MEDLINE
DN 83280702
TI **Solid**-phase reagent **strips** for detection of therapeutic drugs in serum by **substrate**-labeled **fluorescent** immunoassay.
AU Walter B; Greenquist A C; Howard W E 3d
SO ANALYTICAL CHEMISTRY, (1983 May) 55 (6) 873-8.
Journal code: 4NR. ISSN: 0003-2700.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
EM 198311
CT Check Tags: Human
Binding, Competitive
Fluorescent Antibody Technique
Immunoassay: MT, methods
***Pharmaceutical Preparations: BL, blood**
Protein Binding
Reagent Strips
Theophylline: BL, blood

```
=> fil caplus

FILE 'CAPLUS' ENTERED AT 12:45:12 ON 19 AUG 1999
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 1999 AMERICAN CHEMICAL SOCIETY (ACS)
```



```
FILE COVERS 1967 - 19 Aug 1999  VOL 131 ISS 8
FILE LAST UPDATED: 19 Aug 1999  (19990819/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.

  This file supports REG1stRY for direct browsing and searching of
  all substance data from the REGISTRY file.  Enter HELP FIRST for
  more information.

=> d his

     (FILE 'CAPLUS' ENTERED AT 12:32:08 ON 19 AUG 1999)
               DEL HIS Y
               SET SFIELD BI
L1           16 S  (MULTIPLE (2W) BIND? (2W) (ARRAY# OR PARTNER# OR ASSAY# OR
I
L2           38 S  (MULTIPLE (2A) BIND? (2A)(ARRAY# OR PARTNER# OR ASSAY# OR
IM
               SET SFIELD OBI
L3        94255 S ASSAY# OR IMMUNOASSAY# OR IMMUNOCHEMICAL ANALYSIS
L4           16 S L3 AND L2
               SET SFIELDS BI
L5          747 S (BINDING (2A) PARTNER#)
L6          287 S L5 AND L3
L7           27 S L5 (3A) (TWO OR SECOND )
L8           15 S L7 AND L3
L9       410529 S FLUORESC? OR DYE#
L10           6 S L9 AND L8
L11        9196 S CYANINE
L12           0 S L11 AND L8
L13          89 S L5 AND L9
L14          60 S L13 AND L3
L15           1 S L11 AND L14
L16          23 S L4 OR  L10 OR L15
L17       67542 S SOLID (2W)(PHASE OR SUPPORT#)
L18         398 S ANALYTE? (2A) BINDING
L19         256 S L18 AND L3
L20          66 S L19 AND (L9 OR L11)
L21           7 S L20 AND L17
L22        6975 S POLYMER? (3A) SUPPORT#
```

L23 67 S L22 AND L3
L24 1 S L23 AND (L18 OR L5 OR L2)
L25 31 S L16 OR L21 OR L24

FILE 'CAPLUS' ENTERED AT 12:45:12 ON 19 AUG 1999

=> d .ca 1-31

L25 ANSWER 1 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1999:339522 CAPLUS
DOCUMENT NUMBER: 130:334996
TITLE: Opposable-element chromatographic **assay** device for detection of analytes
INVENTOR(S): Magginetti, Paul David; Fitzgerald, Daniel Joseph
PATENT ASSIGNEE(S): Smithkline Diagnostics, Inc., USA
SOURCE: Eur. Pat. Appl., 42 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 915336	A2	19990512	EP 1998-309121	19981106
EP 915336	A3	19990609		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.: US 1997-967572 19971110

AB An assay device for detection or detn. of an analyte in a sample uses opposable components and is suitable for assay of human chorionic gonadotropin and other protein or glycoprotein hormones. One embodiment of the device comprises: (1) a first opposable component including: (a) a first chromatog. medium having first and second ends and an immobilized first specific binding partner for the analyte in a detection zone; (b) a conjugate pad in operable contact with the first end of the first chromatog. medium, the conjugate pad contg. a labeled **second** specific **binding partner** for the analyte in resolubilizable form; and (c) a second chromatog. medium having first and second ends and having immobilized thereon in a ref. zone a third specific binding partner that specifically binds the labeled **second** specific **binding partner** for the analyte and does not bind the analyte, the first end of the second chromatog. medium being in operable contact with the conjugate pad; and (2) a second opposable component including a sample application zone. The assay device can include a timing control to indicate when flow through the chromatog. medium has occurred and the assay can be read, and can also contain a validation zone ensuring that interference from human anti-mouse antibody is not present. Other embodiments of devices are included, as well as methods of use.

IC ICM G01N030-90
ICS G01N033-76

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 2, 6

IT Colloids

Immunoassay
(opposable-element chromatog. **assay** device for detection of analytes)

IT Glycoproteins (general), analysis
Hormones (animal), analysis
Proteins (general), analysis
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(opposable-element chromatog. **assay** device for detection of analytes)

IT Avidins
RL: ARU (Analytical role, unclassified); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(opposable-element chromatog. **assay** device for detection of analytes)

IT IgG
RL: ARU (Analytical role, unclassified); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(opposable-element chromatog. **assay** device for detection of analytes)

IT Monoclonal antibodies
RL: ARU (Analytical role, unclassified); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(opposable-element chromatog. **assay** device for detection of analytes)

IT Chromatographs
(opposable-element; opposable-element chromatog. **assay** device for detection of analytes)

IT **Dyes**
(resolubilizable visible; opposable-element chromatog. **assay** device for detection of analytes)

IT 7440-44-0, Carbon, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(colloidal; opposable-element chromatog. **assay** device for detection of analytes)

IT 1393-25-5, Secretin 9002-60-2, Corticotropin, analysis 9002-61-3, Human chorionic gonadotropin 9002-62-4, Prolactin, analysis 9002-64-6, Parathormone 9002-67-9, Luteinizing hormone 9002-68-0, Follicle stimulating hormone 9002-71-5, Thyroid stimulating hormone 9004-10-8, Insulin, analysis 9007-12-9, Calcitonin 9007-92-5, Glucagon, analysis 9011-97-6, Cholecystokinin-pancreozymin 9015-71-8, Corticotropin-releasing hormone 9034-39-3, Growth hormone-releasing hormone 11085-36-2, Human placental lactogen 11096-26-7, Erythropoietin 12629-01-5, Human growth hormone 37221-79-7, Vasoactive intestinal peptide 37377-93-8, .beta.-Lipotropin 52906-92-0, Motilin 59392-49-3, Gastric inhibitory peptide 59763-91-6, Pancreatic polypeptide 60617-12-1, ..beta..-Endorphin
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(opposable-element chromatog. **assay** device for detection of analytes)

IT 58-85-5, Biotin 9013-20-1, Streptavidin
RL: ARU (Analytical role, unclassified); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(opposable-element chromatog. **assay** device for detection of analytes)

L25 ANSWER 2 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1998:785598 CAPLUS
DOCUMENT NUMBER: 130:33956
TITLE: Chemiluminescent detection methods using dual enzyme-labeled binding partners
INVENTOR(S): Akhavan-Tafti, Hashem; Sugioka, Katsuaki; Sugioka, Yumiko; Reddy, Lekkala V.
PATENT ASSIGNEE(S): Lumigen, Inc., USA
SOURCE: U.S., 23 pp., Cont.-in-part of U.S. Ser. No. 300,367.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 12
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5843666	A	19981201	US 1996-749595	19961115
US 5686258	A	19971111	US 1994-300367	19940902
WO 9821586	A1	19980522	WO 1997-US19612	19971107
W: AU, CA, CN, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9850940	A1	19980603	AU 1998-50940	19971107
PRIORITY APPLN. INFO.:			US 1994-300367	19940902
			US 1993-61810	19930517
			US 1994-205093	19940302
			US 1994-228290	19940415
			US 1996-749595	19961115
			WO 1997-US19612	19971107

OTHER SOURCE(S): MARPAT 130:33956
AB Methods of detecting analytes or target species using **two** enzyme-labeled specific **binding partners** where the **two** enzymes function in concert to produce a detectable chemiluminescent signal are disclosed. The methods use a specific binding partner labeled with a hydrolytic enzyme to produce a phenolic enhancer in close proximity to a peroxidase-labeled **second** specific **binding partner**. The method is useful to detect and quantitate with improved specificity various biol. mols. including antigens and antibodies by the technique of immunoassay, proteins by Western blotting, DNA by Southern blotting, RNA by Northern blotting. The method may also be used to detect DNA mutations and juxtaposed gene segments in chromosomal translocations and particularly to unambiguously identify heterozygous genotypes in a single test.
IC ICM G01N033-535
NCL 435006000
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 6, 9, 13, 14
IT Chemiluminescence
Chemiluminescence spectroscopy
Chemiluminescent substances
Chromosomal translocation
Chromosomes

Cystic fibrosis
Epitopes
Filters
Genetic diagnosis
Heterozygosity
Human immunodeficiency virus 1
Immunoassay
Immunoblotting
Membranes (nonbiological)
Molecular association
Molecular diagnosis
Mutation
Nonionic surfactants
Northern blot hybridization
Nucleic acid hybridization
PCR (polymerase chain reaction)
Rearrangement (genetic)
Southern blot hybridization
Test tubes
(chemiluminescent detection methods using dual enzyme-labeled binding partners)

IT **Immunoassay**
(sandwich; chemiluminescent detection methods using dual enzyme-labeled
binding partners)

IT 58-85-5, Biotin 124-43-6 521-31-3, Luminol 1672-46-4, Digoxigenin 2321-07-5, **Fluorescein** 7607-80-9 7722-84-1, Hydrogen peroxide, biological studies 9013-20-1, Streptavidin 207996-97-2D, 5' biotin conjugate 208057-32-3D, 3' **fluorescein** conjugate
RL: ARU (Analytical role, unclassified); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(chemiluminescent detection methods using dual enzyme-labeled binding partners)

IT 207996-94-9D, 5' conjugate with **fluorescein** 207996-95-0D, conjugate with digoxigenin 207996-98-3D, 5' biotin conjugate 207996-99-4D, 5' digoxigenin conjugate
RL: ARU (Analytical role, unclassified); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(probe; chemiluminescent detection methods using dual enzyme-labeled binding partners)

L25 ANSWER 3 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1998:618874 CAPLUS
DOCUMENT NUMBER: 129:227809
TITLE: Diagnostic neodymium(III), ytterbium(III), or erbium(III) ion-ligand complexes
INVENTOR(S): Hofstraat, Johannes Willem
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 9839654 A1 19980911 WO 1998-EP1287 19980228
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
AU 9868284 A1 19980922 AU 1998-68284 19980228
PRIORITY APPLN. INFO.: US 1997-42354 19970324
WO 1998-EP1287 19980228

AB The invention relates to a method for detection of an analyte in a test sample by a specific binding reaction among the analyte, a specific **binding partner** for the analyte, and an (immuno)reactant provided with a label, characterized in that the label is a lanthanide ion-ligand complex wherein the lanthanide ion is neodymium(III) ion (Nd3+), ytterbium(III) ion (Yb3+), or erbium(III) ion (Er3+) and the ligand comprises or is in contact with a sensitizing moiety which absorbs in the 400-1000 nm region, and preferably in the 400-800 nm region. Further, a diagnostic kit is disclosed as well as a method of detecting an analyte in a matrix of biomedical interest through an oligonucleotide, an antigen, or an antibody attached to a material, preferably core-shell latex or with specific binding sites wherein the antigen or antibody is labeled with the lanthanide ion-ligand complex and brought into contact with the analyte, after which the analyte with the lanthanide-ion complex is immobilized on the material, and, optionally, residual lanthanide-ion complex is removed, after which the sample obtained is irradiated with light in the 400-1000 nm region, and the emitted light from the sample is detected if the analyte is present in the matrix of biomedical interest. 2',7'-Dichloro-4',5'-fluorexon-4-isothiocyanate (prepn. given) was chelated with YbCl3.6H2O and used to label antibody to human chorionic gonadotropin for a sandwich immunoassay and amino-functionalized HIV oligonucleotide for a hybridization assay.

IC ICM G01N033-533
CC 9-5 (Biochemical Methods)
Section cross-reference(s): 2, 3, 27, 28, 73
ST diagnosis label neodymium ytterbium erbium complex; luminescence lanthanide ligand complex sensitizer; fluorexon ytterbium chelate label; **immunoassay** chorionic gonadotropin ytterbium label; hybridization **assay** ytterbium chelate label

IT **Cyanine dyes**
(as sensitizer; diagnostic neodymium(III) and ytterbium(III) or erbium(III) ion-ligand complexes)

IT Analytical apparatus
Immunoassay
Luminescence spectroscopy
Nucleic acid hybridization
Spectroscopy
(diagnostic neodymium(III) and ytterbium(III) or erbium(III) ion-ligand complexes)

IT 91-64-5D, Coumarin, derivs. 92-84-2D, 10H-Phenothiazine, derivs. 135-67-1D, Phenoxazine, derivs. 260-94-6D, Acridine, derivs. 482-89-3D, Indigo, derivs. 519-73-3D, Triphenylmethane, derivs. 522-75-8D, Thioindigo, derivs. 574-93-6D, Phthalocyanine, derivs.

2321-07-5D, **Fluorescein**, derivs. 13558-31-1D, derivs.
23627-89-6D, Naphthalocyanine, derivs. 78675-98-6D, Squaraine, derivs.
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(as sensitizer; diagnostic neodymium(III) and ytterbium(III) or erbium(III) ion-ligand complexes)

IT 9002-61-3, Chorionic gonadotropin
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(luminescent sandwich **immunoassay** for, of human; diagnostic neodymium(III) and ytterbium(III) or erbium(III) ion-ligand complexes)

L25 ANSWER 4 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1998:543214 CAPLUS
DOCUMENT NUMBER: 129:158856
TITLE: Improving performance of binding **assays** by use of more than one label
INVENTOR(S): Piran, Uri; Quinn, John J.
PATENT ASSIGNEE(S): Chiron Diagnostics Corporation, USA
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9834109	A1	19980806	WO 1998-IB125	19980202
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9855729	A1	19980825	AU 1998-55729	19980202
PRIORITY APPLN. INFO.:			US 1997-791591	19970131
			WO 1998-IB125	19980202

AB Novel binding assay techniques have been developed which improve accuracy and sensitivity via accounting for interfering factors. They rely on use, in a simultaneous incubation, of two or more different labels, some of which are used primarily to detect analyte, and others to detect interfering substances originating in the sample. The math. relationships between the labels allow corrections that lead to more accurate and sensitive detn. of the presence and concn. of the analyte. A triiodothyronine (T3) competitive immunoassay used di-Me acridinium ester-labeled monoclonal antibody to T3, long emission acridinium ester-labeled monoclonal antibody to T2, and bovine gamma globulin-T2 immobilized on paramagnetic particles. Dild. goat anti-mouse IgG serum was used as a model for an interfering factor.

IC ICM G01N033-53
ICS G01N033-58; G01N033-78; G01N033-542

CC 9-2 (Biochemical Methods)

Section cross-reference(s): 2, 15
ST **binding assay multiple** label interference; triiodothyronine **immunoassay** multiple acridinium ester label
IT Blood analysis
(TSH **immunoassay** in; improving performance of binding **assays** by use of more than one label)
IT Onium compounds
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(acridinium, esters, di-Me, conjugates with monoclonal antibody to T3 and T2; improving performance of binding **assays** by use of more than one label)
IT IgG
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(anti-mouse, correction of interference from, in competitive **immunoassay** for T3; improving performance of binding **assays** by use of more than one label)
IT .gamma.-Globulins
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(conjugates with T2, for raising monoclonal antibodies; improving performance of binding **assays** by use of more than one label)
IT Analysis
Chemiluminescent substances
Genetic methods
Immunoassay
Magnetic particles
Mathematical methods
(improving performance of binding **assays** by use of more than one label)
IT Monoclonal antibodies
RL: AGR (Agricultural use); BPN (Biosynthetic preparation); BPR (Biological process); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(improving performance of binding **assays** by use of more than one label)
IT Receptors
RL: ANT (Analyte); ARG (Analytical reagent use); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(improving performance of binding **assays** by use of more than one label)
IT Labeled monoclonal antibodies
RL: AGR (Agricultural use); BPR (Biological process); BIOL (Biological study); PROC (Process); USES (Uses)
(labeled with di-Me acridinium ester or long emission acridinium ester; improving performance of binding **assays** by use of more than one label)
IT Particles
(paramagnetic; improving performance of binding **assays** by use of more than one label)
IT 6893-02-3, Triiodothyronine
RL: ANT (Analyte); ANST (Analytical study)
(competitive **immunoassay** for; improving performance of binding **assays** by use of more than one label)
IT 1041-01-6D, Diiodothyronine, conjugates with bovine gamma globulin
RL: AGR (Agricultural use); BPR (Biological process); BIOL (Biological

study); PROC (Process); USES (Uses)
(for raising monoclonal antibodies and immobilized for competitive **immunoassay** for T3; improving performance of binding **assays** by use of more than one label)

IT 1041-01-6, Diiodothyronine
RL: ARG (Analytical reagent use); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(monoclonal antibody to, in competitive **immunoassay** for T3; improving performance of binding **assays** by use of more than one label)

IT 9002-71-5, TSH
RL: ANT (Analyte); ANST (Analytical study)
(noncompetitive **immunoassay** for; improving performance of binding **assays** by use of more than one label)

L25 ANSWER 5 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1998:457218 CAPLUS
DOCUMENT NUMBER: 129:78843
TITLE: Method and apparatus for **immunoassay** using **fluorescent** induced surface plasma emission
INVENTOR(S): Lin, Jinn-nan; Wilson, Christopher J.
PATENT ASSIGNEE(S): Diagnostic Products Corp., USA
SOURCE: U.S., 19 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5776785	A	19980707	US 1996-777406	19961230
EP 851230	A1	19980701	EP 1997-310569	19971223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AU 9749232	A1	19980709	AU 1997-49232	19971223
AU 698376	B2	19981029		
JP 10311831	A2	19981124	JP 1997-366987	19971226
PRIORITY APPLN. INFO.:			US 1996-777406	19961230

AB A method and app. are described for immunoassays utilizing an improved collection technique of **fluorescence** induced emissions at the solid phase/liq. phase interface from surface plasmon resonance sensing devices. In a preferred embodiment, a solid phase substrate is coated with a thin film of a conducting material on which a first specific binding partner is directly or indirectly immobilized. The coated solid phase substrate is incubated with a liq. component comprised of a biol. sample contg. a specific ligand or analyte and a **fluorescent** -labeled **second** specific **binding partner** in the case of immunometric assays, or a **fluorescent** labeled ligand or analog thereof in the case of competitive assays. Improvements are described in the method of light collection for the induced emission of surface plasmon resonance based sensing devices which involve (a) irradiating the film of the stratified optical system from the substrate side with light that has a wavelength, polarization and angle of incidence appropriate for exciting surface plasmon resonance **fluorescence**; (b) incubating the sample contg. **fluorescently** labeled mols.

with said solid phase substrate film; and (c) employing 360.degree. azimuthal collection of the **fluorescence** induced emission cone, and monitoring and analyzing the rate or amt. by which the detected induced emission intensity changes as binding between the **fluorescent** or **fluorescently** labeled mols. and the film progresses.

IC ICM G01N033-552
NCL 436527000
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 6, 7, 73
ST **fluorescent** induced surface plasmon emission **immunoassay** ; fluorometer **fluorescent** induced surface plasmon emission
IT Phycoerythrins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(B-phycoerythrins; method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)
IT Phycoerythrins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(R-phycoerythrins; method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)
IT Metals, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(film; method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)
IT Fluorometers
Optical sensors
(**fluorescence** induced surface plasmon emission; method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)
IT Films
(metal; method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)
IT Blood analysis
Body fluid
Drugs
Fluorescence immunoassay
Fluorescent indicators
Fluorescent substances
Fluorometry
Immunoassay
Serum (blood)
Surface plasmon
(method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)
IT Allergens
Antibodies
Antigens
Enzymes, analysis
Haptens
Hormones (animal), analysis
Oligonucleotides
Proteins (general), analysis
RL: ANT (Analyte); ANST (Analytical study)
(method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)
IT Allophycocyanins

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)

IT Glass, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)

IT **Dyes**
(near IR; method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)

IT Immunosensors
(optical, surface plasmon-based; method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)

IT Plastics, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(optical; method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)

IT **Fluorescence**
(surface plasmon emission; method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)

IT Optical biosensors
(surface plasmon-based immunosensors; method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)

IT 9001-15-4, Creatine kinase
RL: ANT (Analyte); ANST (Analytical study)
(MB; method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)

IT 36877-69-7, Rhodamine isothiocyanate 42922-78-1, **Fluorescein** isocyanate 146368-15-2
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)

IT 7440-57-5, Gold, analysis 7631-86-9, Silica, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(method and app. for **immunoassay** using **fluorescent** induced surface plasmon emission)

L25 ANSWER 6 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1998:344578 CAPLUS
DOCUMENT NUMBER: 129:25385
TITLE: Chemiluminescent detection methods using dual enzyme-labeled binding partners
INVENTOR(S): Akhavan-Tafti, Hashem; Sugioka, Katsuaki; Sugioka, Yumiko; Reddy, Lekkala V.
PATENT ASSIGNEE(S): Lumigen, Inc., USA
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 12
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9821586	A1	19980522	WO 1997-US19612	19971107
W: AU, CA, CN, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5843666	A	19981201	US 1996-749595	19961115
AU 9850940	A1	19980603	AU 1998-50940	19971107
PRIORITY APPLN. INFO.:			US 1996-749595	19961115
			US 1994-300367	19940902
			WO 1997-US19612	19971107

OTHER SOURCE(S): MARPAT 129:25385

AB Methods of detecting analytes or target species using **two** enzyme-labeled specific **binding partners** where the **two** enzymes function in concert to produce a detectable chemiluminescent signal are disclosed. The methods use a specific binding partner labeled with a hydrolytic enzyme to produce a phenolic enhancer in close proximity to a peroxidase-labeled **second** specific **binding partner**. The method is useful to detect and quantitate with improved specificity various biol. mols. including antigens and antibodies by the technique of immunoassay, proteins by Western blotting, DNA by Southern blotting, RNA by Northern blotting. The method may also be used to detect DNA mutations and juxtaposed gene segments in chromosomal translocations and particularly to unambiguously identify heterozygous genotypes in a single test. Cystic fibrosis .DELTA.F508 mutation was detected by Southern transfer and hybridization using biotin-labeled oligonucleotide complementary to the normal allele and digoxigenin-labeled oligonucleotide complementary to the mutant allele, anti-digoxigenin antibody conjugated with alk. phosphatase, and avidin-horseradish peroxidase. Detection reagent contained protected horseradish peroxidase enhancer 2-naphthyl phosphate, chemiluminescent peroxidase substrate 2,3,6-trifluorophenyl 10-methylacridan-9-carboxylate, and urea peroxide, etc. A strong chemiluminescent signal was emitted in the heterozygous genotype while the wild type and .DELTA.F508/.DELTA.F508 genotypes were neg.

IC ICM G01N033-535

CC 9-5 (Biochemical Methods)
Section cross-reference(s): 3, 7, 15

ST chemiluminescence **assay** dual enzyme label; alk phosphatase peroxidase label chemiluminescence **assay**; nucleic acid hybridization dual enzyme label; cystic fibrosis gene mutation chemiluminescence detection; **immunoassay** chemiluminescence dual enzyme label

IT **Immunoassay**
(sandwich; chemiluminescent detection methods using dual enzyme-labeled binding partners)

IT 58-85-5, Biotin 1672-46-4, Digoxigenin 2321-07-5, **Fluorescein**
RL: ARG (Analytical reagent use); BPR (Biological process); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(hapten label; chemiluminescent detection methods using dual enzyme-labeled binding partners)

IT 207996-94-9D, **fluorescein** 5'-labeled
RL: ARG (Analytical reagent use); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(labeled probe; chemiluminescent detection methods using dual enzyme-labeled binding partners)
IT 207996-97-2D, 5'-biotin labeled 207996-98-3D, 5'-biotin labeled
207996-99-4D, 5'-digoxigenin labeled 208057-32-3D, 3'-**fluorescein**
RL: ARG (Analytical reagent use); BPR (Biological process); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(labeled probe; chemiluminescent detection methods using dual enzyme-labeled binding partners)

L25 ANSWER 7 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1997:625654 CAPLUS
DOCUMENT NUMBER: 127:231582
TITLE: Method and test strip for determining an analyte
INVENTOR(S): Bausback, Jorg
PATENT ASSIGNEE(S): Boehringer Mannheim Gmbh, Germany; Bausback, Jorg
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9734147	A1	19970918	WO 1997-EP1253	19970312
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19609838	A1	19970918	DE 1996-19609838	19960313
EP 888548	A1	19990107	EP 1997-914229	19970312
R: DE, ES, FR, GB, IT				
PRIORITY APPLN. INFO.:			DE 1996-19609838	19960313
			WO 1997-EP1253	19970312

AB The invention concerns a method for the immunol. detn. of an analyte on a chromatog. test strip contg. one or several absorbent matrixes on a carrier material which are in fluid-transferring contact with one another.
The matrixes form a feed region at one end of the carrier material and an intake region at the other end; in or adjoining the feed region, a conjugate region which contains a visually detectable, particle-marked **analyte-binding** partner; a chromatog. region adjoining the conjugate region; and a collector region between the chromatog. region and the intake region, the collector region contg. **solid-phase**-bound binding partners for the analytes or an unmarked **analyte**-specific **binding** partner. The method is carried out by feeding the analyte soln. to the feed region and measuring the amt. of marker bound in the collector region as a measure of the analyte. The method is characterized in that a **fluorescent dye** is applied to the feed region or the matrix between the feed region and the collector region, the **dye** being able to migrate chromatog. in

the analyte soln. through the collector region and in that the presence of the directly marked binding partner in the collector zone is measured visually while the **fluorescent dye** located in the vicinity of the collector region is stimulated simultaneously.

IC ICM G01N033-558
ICS G01N033-58

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 15

ST chromatog test strip **immunoassay fluorescent dye**

IT Chromatography
Fluorescent dyes
Immobilization (molecular)
Immunoassay
Immunoassay apparatus
Latex
Liposomes
Polymer-supported reagents
(chromatog. test strip and method for **immunoassay** using **fluorescent dyes**)

IT Antibodies
Carbohydrates, analysis
DNA
Immunoglobulin fragments
RNA
RL: ANT (Analyte); ARG (Analytical reagent use); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(chromatog. test strip and method for **immunoassay** using **fluorescent dyes**)

IT Antigens
RL: ANT (Analyte); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(chromatog. test strip and method for **immunoassay** using **fluorescent dyes**)

IT Carbon black, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(chromatog. test strip and method for **immunoassay** using **fluorescent dyes**)

IT Lectins
RL: ARG (Analytical reagent use); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(chromatog. test strip and method for **immunoassay** using **fluorescent dyes**)

IT Metals, uses
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(chromatog. test strip and method for **immunoassay** using **fluorescent dyes**)

IT Glass, uses
Plastics, uses
RL: DEV (Device component use); USES (Uses)
(chromatog. test strip and method for **immunoassay** using **fluorescent dyes**)

IT 65-61-2, Acridine orange 81-88-9 635-78-9, Resorufin 7440-57-5, Gold, uses 7782-49-2, Selenium, uses 13494-80-9, Tellurium, uses 82354-19-6, Texas red 117548-22-8 138588-53-1 195370-70-8
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(chromatog. test strip and method for **immunoassay** using **fluorescent dyes**)

IT 58-85-5, Biotin 9013-20-1, Streptavidin
RL: ARG (Analytical reagent use); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(chromatog. test strip and method for **immunoassay** using **fluorescent dyes**)

IT 9004-70-0, Cellulose nitrate
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(chromatog. test strip and method for **immunoassay** using **fluorescent dyes**)

IT 9003-53-6, Polystyrene
RL: DEV (Device component use); USES (Uses)
(chromatog. test strip and method for **immunoassay** using **fluorescent dyes**)

L25 ANSWER 8 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1997:594877 CAPLUS
DOCUMENT NUMBER: 127:259751
TITLE: System for simultaneously conducting **multiple** ligand **binding assays**
INVENTOR(S): Obremski, Robert; Silzel, John W.
PATENT ASSIGNEE(S): Beckman Instruments, Inc., USA
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9732212	A1	19970904	WO 1997-US2748	19970224
W: JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 904542	A1	19990331	EP 1997-906727	19970224
R: DE, FR, GB				
PRIORITY APPLN. INFO.:			US 1996-609410	19960301
			WO 1997-US2748	19970224

AB A system for simultaneously conducting multiple ligand assays on a sample potentially contg. target analytes uses as a detector a waveguide having thereon a plurality of probes, e.g., antibodies, of known recognition to the target analytes. The probes are in discrete areas on the waveguide. A sample contg. target analyte is treated with a light-responsive compd. such that it binds to the target analyte to form a conjugate and the conjugate is applied to the probes on the waveguide. A laser light is passed into the waveguide so that evanescent waves radiate from the waveguide. Where conjugate has attached to probe there is emission of light different from that emitted by a probe without conjugate attached thereto. An example describes the detn. of digoxin by using a polystyrene

waveguide on which are printed spots of antidigoxin monoclonal antibodies,
in addn. to the reagents biotinylated digoxin and fluorescent-labeled anti-digoxin antibodies.

IC ICM G01N033-543
ICS G01N021-55; G01N033-58

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 1, 3, 15, 73, 80

ST ligand binding **assay** waveguide evanescent wave; body fluid **multiple** ligand **binding assay**; detector waveguide laser ligand binding **assay**; **immunoassay** multiple ligand waveguide evanescent wave

IT Lenses
(confocal; **multiple** ligand **binding assay** system using waveguides with immobilized components)

IT Electromagnetic wave
(evanescent; **multiple** ligand **binding assay** system using waveguides with immobilized components)

IT Monoclonal antibodies
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(immobilized; **multiple** ligand **binding assay** system using waveguides with immobilized components)

IT Waveguides
(laser; **multiple** ligand **binding assay** system using waveguides with immobilized components)

IT Biochemical analysis
Biosensors
Body fluid
Fluorescence quenching
Fluorescent substances
Immunoassay
Immunoassay apparatus
Immunosensors
Laser radiation
Nucleic acid hybridization
Prisms
Waveguides
(**multiple** ligand **binding assay** system using waveguides with immobilized components)

IT DNA
RL: ANT (Analyte); ANST (Analytical study)
(**multiple** ligand **binding assay** system using waveguides with immobilized components)

IT Avidins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(**multiple** ligand **binding assay** system using waveguides with immobilized components)

IT Ligands
RL: ARG (Analytical reagent use); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(**multiple** ligand **binding assay** system using waveguides with immobilized components)

IT Immobilized antibodies
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(**multiple** ligand **binding assay** system

using waveguides with immobilized components)
IT Lasers
(waveguide; **multiple** ligand **binding assay**
system using waveguides with immobilized components)
IT 196093-80-8
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(DBCY 5; **multiple** ligand **binding assay**
system using waveguides with immobilized components)
IT 20830-75-5, Digoxin
RL: ANT (Analyte); ANST (Analytical study)
(**multiple** ligand **binding assay** system
using waveguides with immobilized components)
IT 20830-75-5D, Digoxin, biotinylated 144377-05-9, CY5
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(**multiple** ligand **binding assay** system
using waveguides with immobilized components)
IT 9003-07-0, Polypropylene 9003-53-6, Polystyrene
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(**multiple** ligand **binding assay** system
using waveguides with immobilized components)

L25 ANSWER 9 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1997:130093 CAPLUS
DOCUMENT NUMBER: 126:128986
TITLE: Surface-enhanced analytical procedures and substrates
INVENTOR(S): Cotton, Therese M.; Chumanov, George; Sokolov, Konstantin; Sheehy, Timothy
PATENT ASSIGNEE(S): Medifor, Ltd., Switz.
SOURCE: PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9641181	A1	19961219	WO 1996-IB733	19960607
W: JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5837552	A	19981117	US 1995-477288	19950607
EP 856156	A1	19980805	EP 1996-922189	19960607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11507128	T2	19990622	JP 1996-500284	19960607
PRIORITY APPLN. INFO.:			US 1995-477288	19950607
			US 1991-733728	19910722
			US 1992-858163	19920327
			US 1993-138890	19931019
			US 1995-453443	19950530
			WO 1996-IB733	19960607

AB Surface-enhanced, anal. procedures are disclosed, wherein a surfaced article includes a substrate surface (e.g., polystyrene, glass, latex, silica, ceramic, etc.), metal islands (e.g., silver, gold, copper, etc.), a spacing/coupling agent layer (e.g., polyglutaraldehyde), and binding

partner mols. (e.g., antibody, antigen, hapten, nucleic acid, lipid, protein, tumor markers, etc.) which bond with workpiece mols. to be detected. A population of spaced-apart metal islands are formed on the substrate and have at least some interconnections formed between them. A continuous layer coats the islands and all surfaces between the islands. The continuous layer includes a coupling agent which immobilizes first binding partner mols. The first partner mols. bond to the coupling agent and the **second binding partner** mols. bind to the first binding partner mols. to allow detection of the presence or concn. of the workpiece binding partner mols.

IC ICM G01N033-553

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 15, 73, 80

ST surface enhanced chem analysis substrate reagent; **immunoassay** surface enhanced analysis substrate; affinity binding **assay** surface enhanced spectrometry

IT Affinity
(binding **assays**; surface-enhanced anal. procedures and substrates)

IT Animal tissue
Biochemical analysis
Immunoassay
Microspheres
Optical fibers
Reducing agents
Surface enhanced Raman spectroscopy
(surface-enhanced anal. procedures and substrates)

IT **Fluorescent dyes**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(surface-enhanced anal. procedures and substrates)

L25 ANSWER 10 OF 31 CAPLUS COPYRIGHT 1999 ACS

ACCESSION NUMBER: 1996:560917 CAPLUS
DOCUMENT NUMBER: 125:242226
TITLE: Ultra-specific **immunoassays** for small molecules: roles of wash steps and multiple binding formats
AUTHOR(S): Self, Colin H.; Dessi, John L.; Winger, Larry A.
CORPORATE SOURCE: Department Clinical Biochemistry, University Newcastle upon Tyne, Newcastle upon Tyne, NE2 4HH, UK
SOURCE: Clin. Chem. (Washington, D. C.) (1996), 42(9), 1527-1531
CODEN: CLCHAU; ISSN: 0009-9147
DOCUMENT TYPE: Journal
LANGUAGE: English

AB New immunometric forms of immunoassay are much more flexible to use than competitive-format immunoassays for small mol. analytes. An example of the utility of this flexibility is the ability to wash the capture antibody after it has been exposed to analyte but before addn. of the labeled reagent. This simple maneuver has a large impact on the specificity obtained from already highly specific assays. We also show that specificity can be further increased by means of our **multiple binding assay** approach, in which the final reading reflects analyte binding to two different primary capture monoclonal antibodies.

CC 9-10 (Biochemical Methods)

ST **immunoassay** wash step **multiple binding**
IT **Immunoassay**
(ultra-specific **immunoassays** for small mols. and roles of wash steps and multiple binding formats)
IT Antibodies
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(ultra-specific **immunoassays** for small mols. and roles of wash steps and multiple binding formats)

L25 ANSWER 11 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1996:231898 CAPLUS
DOCUMENT NUMBER: 124:255272
TITLE: **Immunoassay** with **fluorescent** aggregate
INVENTOR(S): Fujita, Satoshi; Kagyama, Naoto; Momyama, Masayoshi; Kondo, Yasumitsu
PATENT ASSIGNEE(S): Aisin Seiki, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08029422	A2	19960202	JP 1994-183852	19940712

AB Disclosed is an immunoassay using a **solid support** -immobilized 1st **analyte-binding** mol., a 1st hapten-labeled 2nd **analyte-binding** mol., a bispecific antibody against 1st hapten and a 2nd hapten, and a **fluorescent** aggregate-conjugated 2nd hapten. The 1st and 2nd hapten is selected from biotin, digoxigenin, dinitrophenol, trinitrophenol, DNA, RNA, virus, etc. The **fluorescent** aggregate is a **fluorescent** substance-contg. liposome; and the **fluorescent** substance is selected from deriv. of coumarin, naphthalene, **fluorescein**, perylene, pyrene, anthracene, rhodamine, 4-methylumbelliferone, etc. The target analyte is a tissue, cell, virus, DNA, protein, etc.
IC ICM G01N033-543
ICS G01N033-543; G01N033-52
CC 9-10 (Biochemical Methods)
ST **immunoassay fluorescent** aggregate liposome
IT Plastics
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(beads; **immunoassay** uses **solid support** -immobilized **analyte-binding** mol. and hapten-labeled **analyte-binding** mol. and bispecific antibody and **fluorescent** aggregate-conjugated hapten)
IT Animal cell
Animal tissue
Gels
Liposome
Membranes
Virus
(**immunoassay** uses **solid support** -immobilized **analyte-binding** mol. and hapten-labeled **analyte-binding** mol. and bispecific

antibody and **fluorescent** aggregate-conjugated hapten)
IT Proteins, analysis
RL: ANT (Analyte); ANST (Analytical study)
(**immunoassay** uses **solid support**
-immobilized **analyte-binding** mol. and
hapten-labeled **analyte-binding** mol. and bispecific
antibody and **fluorescent** aggregate-conjugated hapten)
IT Deoxyribonucleic acids
RL: ANT (Analyte); ARU (Analytical role, unclassified); MOA (Modifier or additive use); ANST (Analytical study); USES (Uses)
(**immunoassay** uses **solid support**
-immobilized **analyte-binding** mol. and
hapten-labeled **analyte-binding** mol. and bispecific
antibody and **fluorescent** aggregate-conjugated hapten)
IT Antibodies
Ribonucleic acids
RL: ARU (Analytical role, unclassified); MOA (Modifier or additive use); ANST (Analytical study); USES (Uses)
(**immunoassay** uses **solid support**
-immobilized **analyte-binding** mol. and
hapten-labeled **analyte-binding** mol. and bispecific
antibody and **fluorescent** aggregate-conjugated hapten)
IT Glass, oxide
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(plate, **immunoassay** uses **solid support**
-immobilized **analyte-binding** mol. and
hapten-labeled **analyte-binding** mol. and bispecific
antibody and **fluorescent** aggregate-conjugated hapten)
IT 51-28-5, Dinitrophenol, analysis 58-85-5, Biotin 88-89-1 90-33-5, 4-Methylumbelliferone 91-20-3D, Naphthalene, derivs. 91-64-5, Coumarin
92-75-1 120-12-7D, Anthracene, derivs. 129-00-0D, Pyrene, derivs. 198-55-0D, Perylene, derivs. 1672-46-4, Digoxigenin 1830-77-9 2321-07-5 4272-77-9, Dansyl acid 13558-31-1 16322-19-3 107347-53-5, TRITC 144077-66-7 175446-14-7 175446-15-8
RL: ARU (Analytical role, unclassified); MOA (Modifier or additive use); ANST (Analytical study); USES (Uses)
(**immunoassay** uses **solid support**
-immobilized **analyte-binding** mol. and
hapten-labeled **analyte-binding** mol. and bispecific
antibody and **fluorescent** aggregate-conjugated hapten)

L25 ANSWER 12 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1996:201652 CAPLUS
TITLE: **Multiple**-plug **binding** **assays** using affinity capillary electrophoresis
AUTHOR(S): Gomez, Frank A.; Mirkovich, Joseph N.; Dominguez, Victor M.; Liu, Kok W.; Macias, Doreen M.
CORPORATE SOURCE: Dep. Chem. Biochem., California State Univ., Los Angeles, CA, 90032-8202, USA
SOURCE: J. Chromatogr., A (1996), 727(2), 291-9
CODEN: JCRAEY; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This work evaluates the concept of a **multiple**-plug **binding assay** to est. binding consts. of proteins to

ligands using affinity capillary electrophoresis (ACE). This concept is demonstrated using two model systems: carbonic anhydrase B (CAB, EC 4.2.1.1) and vancomycin from Streptomyces orientalis. Multiple plugs of protein, and non-interacting neutral and protein stds., are injected and anal. of the electrophoretic mobilities of the individual protein plugs, relative to the non-interacting neutral std., as a function of the concn. of ligand yields values for their binding consts. to the protein. These values agree well with those estd. using other assay and ACE techniques. This technique offers a new and expeditious approach to estg. binding consts. of ligands to proteins.

L25 ANSWER 13 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1995:979827 CAPLUS
DOCUMENT NUMBER: 124:21914
TITLE: The performance of a commercial radioligand binding **assay** for the epidermal growth factor receptor is comparable to the EORTC standard **assay**
AUTHOR(S): Oberkanins, C.; Geurts-Moespot, A.; Zeillinger, R.; Kury, F.; Leake, R. E.; Benraad, T. J.
CORPORATE SOURCE: ViennaLab, Labordiagnostika Ges. m.b.H., Vienna, A-1110, Austria
SOURCE: Eur. J. Cancer, Part A (1995), 31A(10), 1710-11
CODEN: EJCTEA
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A com. available, **multiple** point radioligand **binding** **assay** for EGF receptor (EGF-Receptor Scatchard Assay) was compared with the method recommended by the EORTC (European Organization for Research and Treatment of Cancer). The assays were carried out in human breast carcinomas. Results indicate that both methods generate comparable data and that it is possible to utilize a com. available assay for routine measurement of EGF-R in human tumor specimens according to EORTC stds.
CC 2-1 (Mammalian Hormones)
ST EGF receptor radioligand binding **assay**; breast carcinoma EGF receptor **assay**
IT Receptors
RL: ANT (Analyte); ANST (Analytical study)
(epidermal growth factor/.alpha.-transforming growth factor, gene c-erbB, EGF receptor detn. in human breast carcinoma by com. radioligand binding **assay** in comparison to EORTC std. **assay**)
IT Mammary gland
(neoplasm, carcinoma, EGF receptor detn. in human breast carcinoma by com. radioligand binding **assay** in comparison to EORTC std. **assay**)
IT Animal growth regulator receptors
RL: ANT (Analyte); ANST (Analytical study)
(.alpha.-transforming growth factor gene c-erbB, EGF receptor detn. in human breast carcinoma by com. radioligand binding **assay** in comparison to EORTC std. **assay**)
IT 62229-50-9, Epidermal growth factor
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(EGF receptor detn. in human breast carcinoma by com. radioligand binding **assay** in comparison to EORTC std. **assay**)

L25 ANSWER 14 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1995:946951 CAPLUS
DOCUMENT NUMBER: 124:4498
TITLE: Binding **assay** using binding agents with tail groups
INVENTOR(S): Ekins, Roger Philip
PATENT ASSIGNEE(S): Multilyte Ltd., UK
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9524649	A1	19950914	WO 1995-GB521	19950310
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TT, UA				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9518571	A1	19950925	AU 1995-18571	19950310
EP 749581	A1	19961227	EP 1995-910661	19950310
EP 749581	B1	19981202		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10512664	T2	19981202	JP 1995-523319	19950310
ES 2127514	T3	19990416	ES 1995-910661	19950310
FI 9603560	A	19960910	FI 1996-3560	19960910
PRIORITY APPLN. INFO.:			GB 1994-4709	19940311
			WO 1995-GB521	19950310

AB The present invention discloses methods and kits for the detn. of the concn. of one or more analytes in a liq. sample using capture agents immobilized on a **solid support** and binding agents for **binding** the **analyte**(s), the **binding** agents having tail groups capable of binding to the resp. capture agent. Preferably, the capture agents and binding agents are complementary oligonucleotides, and the capture agents are immobilized in the form of microspots. The use of the tail groups and capture agents can allow the **binding** of the **analyte**(s) to the binding agent(s) to take place in soln., rather than at a surface, improving the kinetics assocd. with this process. In addn., the user of the assay can customize any suitable binding agents for use with a universal support, by attaching tail groups to them. TSH detn. is used as an example.

IC ICM G01N033-58
ICS G01N033-532; G01N033-543; C12Q001-68
CC 9-15 (Biochemical Methods)
Section cross-reference(s): 1, 2, 3, 15
ST binding **assay** reagent oligonucleotide tail hybridization; support immobilization reagent nucleotide tail group; antibody binding **assay** tail group
IT **Fluorescent** substances
Immobilization, biochemical

Immunoassay
Isotope indicators
Nucleic acid hybridization
Pharmaceutical analysis
(binding **assay** using binding agents with tail groups)

IT Hormones
Nucleic acids
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(binding **assay** using binding agents with tail groups)

IT Antibodies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(binding **assay** using binding agents with tail groups)

IT Avidins
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(binding **assay** using binding agents with tail groups)

IT Enzymes
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(binding **assay** using binding agents with tail groups)

IT Immunoglobulins
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(G, conjugates with oligonucleotides; binding **assay** using binding agents with tail groups)

IT Immunoglobulins
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(G, monoclonal, conjugates with oligonucleotides; binding **assay** using binding agents with tail groups)

IT Analysis
(biochem., binding **assay** using binding agents with tail groups)

IT Luminescent substances
(chemi-, binding **assay** using binding agents with tail groups)

IT Nucleotides, biological studies
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(oligo-, conjugates with IgG; binding **assay** using binding agents with tail groups)

IT 9002-71-5, TSH
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(binding **assay** using binding agents with tail groups)

IT 171043-80-4DP, IgG conjugates 171043-81-5DP, IgG conjugates
171043-82-6DP, IgG conjugates 171043-83-7DP, IgG conjugates
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(binding **assay** using binding agents with tail groups)

IT 150244-18-1
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical

study); BIOL (Biological study); USES (Uses)
(binding **assay** using binding agents with tail groups)

L25 ANSWER 15 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1995:321035 CAPLUS
DOCUMENT NUMBER: 122:100974
TITLE: A sequential binding **assay** with a working range extending beyond seven orders of magnitude
AUTHOR(S): Frengen, Jomar; Nustad, Kjell; Schmid, Ruth; Lindmo, Tore
CORPORATE SOURCE: Department of Physics, University of Trondheim, NTH, Trondheim, N-7034, Norway
SOURCE: J. Immunol. Methods (1995), 178(1), 131-40
CODEN: JIMMBG; ISSN: 0022-1759
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A new immunometric sequential binding assay has been developed in which the sample is first reacted with a solid phase binding partner in low concn., and subsequently with a **second binding partner** at a higher concn. The amts. of analyte bound to the **two** solid phase **binding partners** are sep.
measured, thus establishing a double std. curve. There is a shift between
the two std. curves along the concn. axis. Thus an unambiguous detn. of analyte concn. is obtained, even in the descending region of the curves where the 'hook' effect causes decreasing signal with increasing analyte concn. A two-particle immunofluorometric assay for AFP based on this principle measured by flow cytometry, resulted in an assay with rapid binding (.apprx.2 h), a detection limit of 0.1 kIU/l and a working range (0.3 to >3.times.106 kIU/l) in excess of 7 log10 orders. Assay results compared well with those of an immunoradiometric assay.
CC 9-10 (Biochemical Methods)
IT Blood analysis
(immunofluorometric sequential binding **assay** for .alpha.-fetoprotein of blood serum)
IT **Immunoassay**
(**fluorescence**, immunofluorometric sequential binding **assay** for .alpha.-fetoprotein of blood serum)
IT Fetoproteins
RL: ANT (Analyte); ANST (Analytical study)
(.alpha.-, immunofluorometric sequential binding **assay** for .alpha.-fetoprotein of blood serum)

L25 ANSWER 16 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1994:404522 CAPLUS
DOCUMENT NUMBER: 121:4522
TITLE: Bridge **immunoassay**
INVENTOR(S): LaMotte, George B., III
PATENT ASSIGNEE(S): Ciba Corning Diagnostics Corp., USA
SOURCE: U.S., 24 pp. Cont. of U.S. Ser. No. 653,024, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5296347	A	19940322	US 1993-14092	19930204
PRIORITY APPLN. INFO.:			US 1991-653024	19910208

AB Disclosed is a bridge immunoassay, which employs a primary free soln. **analyte**/receptor **binding** reaction, for example, in a sandwich-type format (two or more analyte receptors), in a competitive format (single analyte receptor), or in a related immunoassay format, and a universal **solid phase** and capture system. The universal capture system comprises a first receptor bound to a **solid phase** and a bridge receptor (a second receptor) which functions both as a ligand for the bound first receptor and as a receptor for a ligand conjugated to a sample analyte receptor (a third receptor). The bridge receptor is used to immobilize the immunocomplexes formed free in soln. by linking them to the bound first receptor. The universal capture system can be used for assays for any analyte as the bridge receptor binds to a ligand, for example, a hapten or binding protein, conjugated to the sample analyte receptor. Methods, compns. and test kits for such bridge immunoassays are provided. A sandwich EIA for serum c-erbB-2 protein is described which uses both mouse anti-c-erbB-2 monoclonal antibodies conjugated to either the hapten FITC or to horseradish peroxidase, c-erbB-2 calibrators and controls, a biotinylated mouse monoclonal antibody to FITC as the bridge receptor, and polystyrene tubes coated with streptavidin.

IC ICM G01N033-569
ICS G01N033-543; G01N033-53; G01N033-536

NCL 435005000

CC 9-10 (Biochemical Methods)
Section cross-reference(s): 15

ST bridge **immunoassay**; sandwich bridge EIA serum cerbB2 protein

IT Animal tissue
Blood analysis
Urine analysis
(analyte detn. in, by bridge **immunoassay**)

IT **Immunoassay**
(bridge, universal **solid phase** and capture system in)

IT Pharmaceutical analysis
(by bridge **immunoassay**)

IT **Dyes**
(conjugates with anti-analyte antibody, in bridge **immunoassay** using universal **solid phase** and capture system)

IT Radical ions
(conjugates, with anti-analyte antibody, in bridge **immunoassay** using universal **solid phase** and capture system)

IT Bacteria
Virus
(detn. of, by bridge **immunoassay**)

IT Allergens
Antibodies
Antigens
Keratins
Thyroid hormones
Toxins
Vitamins
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, by bridge **immunoassay**)

IT Steroids, analysis
RL: ANST (Analytical study)
(hormone, detn. of, by bridge **immunoassay**)
IT Receptors
RL: ANST (Analytical study)
(immobilized, in bridge **immunoassay** using universal **solid phase** and capture system)
IT Environmental pollution
(industrial, detn. of, by bridge **immunoassay**)
IT Enzymes
RL: ANST (Analytical study)
(substrates, conjugates with anti-analyte antibody, in bridge **immunoassay** using universal **solid phase** and capture system)
IT Antigens
RL: ANT (Analyte); ANST (Analytical study)
(CEA (carcinoembryonic antigen), detn. of, by bridge **immunoassay**)
IT **Immunoassay**
(bioluminescence, bridge, universal **solid phase** and capture system in)
IT **Immunoassay**
(chemiluminescence, bridge, universal **solid phase** and capture system in)
IT Polysaccharides, uses
RL: USES (Uses)
(conjugates, antigenic, with anti-analyte antibody, in bridge **immunoassay** using universal **solid phase** and capture system)
IT Haptens
RL: ANST (Analytical study)
(conjugates, with anti-analyte antibody, in bridge **immunoassay** using universal **solid phase** and capture system)
IT **Immunoassay**
(enzyme, bridge, universal **solid phase** and capture system in)
IT Receptors
RL: ANT (Analyte); ANST (Analytical study)
(epidermal growth factor/.alpha.-transforming growth factor, gene c-erbB, detn. of, by bridge **immunoassay**)
IT **Immunoassay**
(**fluorescence**, bridge, universal **solid phase** and capture system in)
IT Virus, animal
(human immunodeficiency, antibodies to, detn. of, by bridge **immunoassay**)
IT Avidins
RL: ANST (Analytical study)
(immobilized, in bridge **immunoassay** using universal **solid phase** and capture system)
IT Antibodies
RL: ANST (Analytical study)
(monoclonal, to hapten conjugated to anti-analyte antibody, as bridge receptor, in bridge **immunoassay** using universal **solid phase** and capture system)
IT Receptors
RL: ANT (Analyte); ANST (Analytical study)

(p185c-erbB2, detn. of, by bridge **immunoassay**)
IT **Immunoassay**
(radioimmunoassay, bridge, universal **solid phase** and capture system in)
IT Fetoproteins
RL: ANT (Analyte); ANST (Analytical study)
(.alpha.-, detn. of, by bridge **immunoassay**)
IT Animal growth regulator receptors
RL: ANT (Analyte); ANST (Analytical study)
(.alpha.-transforming growth factor gene c-erbB, detn. of, by bridge **immunoassay**)
IT 58-85-5D, Biotin, anti-hapten antibody conjugates
RL: ANST (Analytical study)
(as bridge receptor in bridge **immunoassay** using universal **solid phase** and capture system)
IT 9002-61-3, Chorionic gonadotropin
RL: ANST (Analytical study)
(detn. of human, by bridge **immunoassay**)
IT 51-48-9, Thyroxine, analysis 9002-71-5, Thyroid-stimulating hormone 9025-26-7, Cathepsin D
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, by bridge **immunoassay**)
IT 70-34-8D, 2,4-Dinitrofluorobenzene, anti-analyte antibody conjugates 260-94-6D, Acridine, derivs., anti-analyte antibody conjugates 605-65-2D, Dansyl chloride, anti-analyte antibody conjugates 2321-07-5D, **Fluorescein**, derivs., anti-analyte antibody conjugates 9001-78-9D, Alkaline phosphatase, conjugates with anti-analyte antibody 9002-13-5D, Urease, conjugates with anti-analyte antibody 9003-99-0D, Peroxidase, conjugates with anti-analyte antibody 9013-20-1D, Streptavidin, immobilized 13558-31-1D, Rhodamine, derivs., anti-analyte antibody conjugates 21811-74-5D, Dichlorotriazinyl aminofluorescein, anti-analyte antibody conjugates 25154-54-5D, Dinitrobenzene, anti-analyte antibody conjugates 25168-10-9D, Naphthylamine, derivs., anti-analyte antibody conjugates 27072-45-3D, **Fluorescein** isothiocyanate, anti-analyte antibody conjugates 63368-54-7D, anti-analyte antibody conjugates 107347-53-5D, Tetramethyl rhodamine isothiocyanate, anti-analyte antibody conjugates
RL: ANST (Analytical study)
(in bridge **immunoassay** using universal **solid phase** and capture system)

L25 ANSWER 17 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1994:101290 CAPLUS
DOCUMENT NUMBER: 120:101290
TITLE: **Assay** for multiple analytes with co-immobilized ligands
INVENTOR(S): Staalberg, Ralph
PATENT ASSIGNEE(S): Pharmacia Biosensor AB, Swed.
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 9325910	A1	19931223	WO 1993-SE488	19930602
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
WO 9221973	A1	19921210	WO 1992-SE386	19920605
W: AU, CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
PRIORITY APPLN. INFO.:			WO 1992-SE386	19920605
			SE 1992-3685	19921207
			SE 1991-1735	19910607

AB A method of assaying for .gtoreq.2 different analytes in a fluid sample, wherein each analyte is detd. by detecting or measuring a mass change at a solid sensing surface caused directly or indirectly by the analyte, comprises the steps of co-immobilizing to the same sensing surface different capture mols. each capable of specifically binding to either a resp. analyte (analog) or analyte-specific binding partner added to the sample, and either (i) after contacting the surface with the sample, detg. the binding of each different analyte (analog) or specific binding partner to the resp. capture mol. by sequentially contacting the surface with resp. specific reagents to said analytes (analogs) or specific binding partners, or (ii) sequentially contacting the immobilized surface with sample portions contg. either different specific binding partners to the resp. sample analytes or different analyte analogs to det. the binding of each specific binding partner or analyte analog to the resp. immobilized analyte (analog) or specific binding partner, resp. Thus, creatine kinase isoenzyme MB (CK-MB) and myoglobin were detd. at elevated levels in plasma by surface plasmon resonance using a sensing surface bearing immobilized monoclonal antibodies specific resp. for CK-MB and myoglobin. A continuous flow of buffer was maintained over the surface, and the resonance response signal was measured after successive injection of a plasma sample, a 2nd antibody to CK-MB, and a 2nd antibody to myoglobin.

IC ICM G01N033-543
ICS C12Q001-68

CC 9-10 (Biochemical Methods)

ST surface plasmon resonance **immunoassay**; antibody binding surface plasmon resonance

IT Refractive index and Optical refraction
(detn. of, at solid sensing surface in specific **binding assay** for **multiple** ligands)

IT Analysis
(for multiple ligands at solid sensing surface by specific binding **assay**)

IT Blood analysis
Immunoassay
(for multiple ligands, by surface plasmon resonance, immobilized antibodies for)

IT Plasmon
(surface, resonance of, detn. of, in specific **binding assay** for **multiple** ligands)

L25 ANSWER 18 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1994:101247 CAPLUS

DOCUMENT NUMBER: 120:101247
TITLE: Method and filter for filtration of radioassays
INVENTOR(S): Potter, Colin Gerald; Warner, Gerald Truscott
PATENT ASSIGNEE(S): UK
SOURCE: Eur. Pat. Appl., 3 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 576155	A2	19931229	EP 1993-304128	19930527
EP 576155	A3	19940518		
EP 576155	B1	19980909		
R: DE, FR, GB				
PRIORITY APPLN. INFO.:			US 1992-888752	19920527

AB In filtration radioisotope competition assays, .gtoreq.2 filters are used for the same sample so that the radioactive count rate of the first filter will indicate the activity of the particles and that of a subsequent filter will est. nonspecific binding. The 1st filter may be composed of charged or hydrophobic material to reduce nonspecific binding. The 2nd filter may be thicker than the 1st, or be coated with a monoclonal antibody or nucleic acid-complementary sequence, to absorb more free compd. and increase counting accuracy. The filters may be coated with scintillants with different compns. so that particle-bound labeled compds. on the 1st filter give different light characteristics from those of the free compd. bound by a subsequent filter (no data).

IC ICM G01N033-60
ICS B01D025-00
CC 9-1 (Biochemical Methods)
ST radiolabel particle filtration **assay**
IT Radiochemical analysis
(by competitive particle-**binding assay**, **multiple** filters for, nonspecific binding in relation to)
IT Filters and Filtering materials
(competitive particle-**binding assay** using **multiple**, nonspecific **binding** in relation to)
IT Electrolytes
(detn. of, by competitive particle-binding radiochem. **assay** with **multiple** filters, nonspecific **binding** in relation to)
IT Elements
Inorganic compounds
Organic compounds, analysis
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, by competitive particle-binding radiochem. **assay** with **multiple** filters, nonspecific **binding** in relation to)
IT Scintillators
(multiple filters coated with, in competitive particle-binding radiochem. **assay**, nonspecific binding in relation to)
IT Nucleic acid hybridization
(probes, filter coated with, for competitive particle-binding

radiochem. **assay**, nonspecific binding in relation to)
IT Organic compounds, analysis
RL: ANT (Analyte); ANST (Analytical study)
(biol., detn. of, by competitive particle-binding radiochem. **assay** with **multiple** filters, nonspecific **binding** in relation to)
IT Antibodies
RL: ANST (Analytical study)
(monoclonal, filter coated with, for competitive particle-binding radiochem. **assay**, nonspecific binding in relation to)
IT 9004-32-4, CM-cellulose 9013-34-7, DEAE-cellulose 9015-14-9, Cellulose
phosphate
RL: ANST (Analytical study)
(filter coated with, in competitive particle-binding radiochem. **assay**, nonspecific binding in relation to)

L25 ANSWER 19 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1993:164735 CAPLUS
DOCUMENT NUMBER: 118:164735
TITLE: Ion-capture **assays** using a binding member conjugated to carboxymethylamylose
INVENTOR(S): Adamczyk, Janina; Berry, Daniel S.; Jou, Yi Her; Stroupe, Stephen Denham
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 91 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9221772	A1	19921210	WO 1992-US2996	19920410
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
JP 06508213	T2	19940914	JP 1992-500396	19920410
EP 641388	A1	19950308	EP 1992-912697	19920410
EP 641388	B1	19980909		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
AT 170927	E	19980915	AT 1992-912697	19920410
ES 2124734	T3	19990216	ES 1992-912697	19920410
US 5459080	A	19951017	US 1994-187814	19940127
PRIORITY APPLN. INFO.:			US 1991-707726	19910530
			US 1988-150278	19880129
			US 1989-375029	19890707
			WO 1992-US2996	19920410

AB A specific binding assay uses (1) a capture reagent comprising a 1st **analyte-binding** member (e.g. antibody) conjugated to carboxymethylamylose or other polyanion, (2) an indicator reagent comprising a labeled 2nd **analyte-binding** member, and (3) a polymeric cation immobilized on a **solid phase**. The analyte is complexed with the 1st and 2nd binding members, the complex is contacted with the **solid phase**, and the indicator bound to the **solid phase** is detected or detd. The

polyanion-contg. capture reagent allows the analyte to be bound to and retained on the **solid phase** even in the presence of other polymeric anions acting as blockers of nonspecific binding. Thus, a sandwich ELISA for carcinoembryonic antigen (CEA) used a capture reagent comprising an anti-CEA antibody conjugated by a single attachment site to poly(glutamic acid), an indicator reagent comprising an anti-CEA antibody conjugated to alk. phosphatase, and a **solid phase** comprising Celquat L-200, a quaternary ammonium polymer.

IC ICM C12Q001-25
ICS G01N033-52; G01N033-53; G01N033-543

CC 9-10 (Biochemical Methods)
Section cross-reference(s): 15

ST ion capture **immunoassay** carboxymethylamylose antibody; antigen detn ion capture **immunoassay**

IT Analysis
(by ion-capture specific binding **assay**, polyanion conjugate with specific binding partner for)

IT Blood analysis
(chorionic gonadotropin and TSH detn. in human, by ion-capture **solid-phase** EIA)

IT Urine analysis
(phencyclidine detn. in human, by ion-capture **solid-phase** EIA)

IT Antigens
RL: ANT (Analyte); ANST (Analytical study)
(CEA (carcinoembryonic antigen), detn. of, by ion-capture **solid-phase** EIA)

IT Immunoglobulins
RL: ANT (Analyte); ANST (Analytical study)
(G, detn. of, by **solid-phase** ion-capture EIA)

IT Polyelectrolytes
(anionic, conjugates, with specific **binding** partners, for **analyte** detn. by ion-capture specific binding **assay**)

IT Polyelectrolytes
(cationic, immobilized, for analyte detn. by ion-capture specific binding **assay**)

IT **Immunoassay**
(enzyme, **solid-phase** ion-capture, antibody-polyanion conjugate and immobilized polycation in)

IT Albumins, compounds
RL: ANST (Analytical study)
(reaction products, with azobenzenesulfonic acid and succinic anhydride, in human chorionic gonadotropin detn. by ion-capture **solid-phase** EIA)

IT 7440-57-5, Gold, analysis
RL: ANST (Analytical study)
(colloidal particles, antibody-coated, in chorionic gonadotropin detn. in human urine by ion-capture **solid-phase** EIA)

IT 7782-49-2, Selenium, analysis
RL: ANST (Analytical study)
(colloidal particles, monoclonal antibody-coated, in chorionic gonadotropin detn. in human urine by ion-capture **solid-phase** EIA)

IT 9002-61-3, Chorionic gonadotropin
RL: ANST (Analytical study)
(detn. of human, by **solid-phase** ion-capture EIA)

IT 58-55-9, Theophylline, analysis 6893-02-3, Triiodothyronine
20830-75-5, Digoxin
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, by ion-capture **solid-phase** EIA)
IT 57-83-0, Progesterone, analysis
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, by ion-capture **solid-phase** EIA, antibody detn. in relation to)
IT 9002-71-5, TSH
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, in blood serum of human by ion-capture **solid-phase** EIA)
IT 77-10-1, Phencyclidine
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, in urine of human by ion-capture **solid-phase** EIA)
IT 12768-31-9D, Carboxymethylamylose, conjugates with specific **binding** partners
RL: ANST (Analytical study)
(for **analyte** detn. by ion-capture specific binding **assay**)
IT 26062-79-3D, Merquat 100, immobilized 55008-57-6D, Gafquat 755N, immobilized 92183-41-0D, Celquat L-200, immobilized
RL: ANST (Analytical study)
(for ion-capture **solid-phase** EIA)
IT 9004-32-4, Carboxymethylcellulose 23330-83-8 37300-21-3 60120-39-0, .beta.-Cyclodextrin sulfate
RL: ANST (Analytical study)
(immobilized polycation nonspecific blocking by, in analyte detn. by ion-capture specific binding **assay**)
IT 9005-49-6, Heparin, biological studies 9042-14-2, Dextran sulfate 9044-05-7, Carboxymethyldextran
RL: BIOL (Biological study)
(immobilized polycation nonspecific blocking by, in analyte detn. by ion-capture specific binding **assay**)
IT 9001-78-9D, Alkaline phosphatase, digoxin conjugates 20830-75-5D, conjugates with alk. phosphatase
RL: ANST (Analytical study)
(in digoxin detn. by ion-capture **solid-phase** EIA)
IT 9003-01-4D, Poly(acrylic acid), antibody conjugates 24991-23-9D, antibody conjugates 25513-46-6D, Poly(glutamic acid), antibody conjugates 25608-40-6D, Poly(aspartic acid), antibody conjugates 26063-13-8D, Poly(aspartic acid), antibody conjugates
RL: ANST (Analytical study)
(in ion-capture **solid-phase** EIA)
IT 6893-02-3D, Triiodothyronine, conjugates with alk. phosphatase 9004-32-4D, Carboxymethylcellulose, triiodothyronine conjugates
RL: ANST (Analytical study)
(in triiodothyronine detn. by ion-capture **solid-phase** EIA)
IT 107-15-3D, Ethylenediamine, **fluorescein** derivs. 2321-07-5D, **Fluorescein**, ethylenediamine derivs.
RL: ANST (Analytical study)
(poly(glutamic acid) deriv. labeling with)
IT 123706-67-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction with poly(glutamic acid), for ion-capture

solid-phase EIA)
IT 64987-85-5D, antibody conjugates
RL: RCT (Reactant)
(reaction of, with anionically modified albumin for ion-capture **solid-phase** EIA)
IT 4044-65-9D, 1,4-Phenylenediisothiocyanate, poly(glutamic acid) conjugates
RL: RCT (Reactant)
(reaction of, with antibody for ion-capture **solid-phase** EIA)
IT 108-30-5D, Succinic anhydride, albumin conjugates, uses
RL: RCT (Reactant)
(reaction of, with azobenzenesulfonic acid in polyanion prepn. for ion-capture **solid-phase** EIA)
IT 2779-21-7, p-Azobenzenesulfonic acid
RL: RCT (Reactant)
(reaction of, with succinylated albumin in polyanion prepn. for ion-capture **solid-phase** EIA)

L25 ANSWER 20 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1993:143000 CAPLUS
DOCUMENT NUMBER: 118:143000
TITLE: Reagents containing a nonspecific binding blocker in ion-capture binding **assays**
INVENTOR(S): Adamczyk, Janina; Berry, Daniel S.; Fico, Rosario; Jou, Yi Her; Stroupe, Stephen D.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9221769	A1	19921210	WO 1992-US2979	19920410
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
EP 586590	A1	19940316	EP 1992-913618	19920410
EP 586590	B1	19990707		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
JP 06508210	T2	19940914	JP 1992-500393	19920410
AT 181965	E	19990715	AT 1992-913618	19920410
PRIORITY APPLN. INFO.:			US 1991-707372	19910530
			WO 1992-US2979	19920410

AB A specific binding assay uses (1) a capture reagent comprising a 1st **analyte-binding** member (e.g. antibody) conjugated to a polyanion, (2) an indicator reagent comprising a labeled 2nd **analyte-binding** member, (3) a polymeric cation immobilized on a **solid phase**, and (4) a blocker of nonspecific binding comprising an unbound polyanion. The analyte is complexed with the 1st and 2nd binding members, and the complex is contacted with the **solid phase**; the indicator binds to the **solid phase**, even in the presence of the blocker, and bound indicator is detected or detd. The blocker is a sep. reagent or
is included in the indicator reagent or the capture reagent; suitable

blockers include dextran sulfate, heparin, carboxymethyldextran, CM-cellulose, pentosan polysulfate, inositol hexasulfate, and .beta.-cyclodextrin sulfate. Thus, a sandwich ELISA for TSH used a capture reagent comprising a monoclonal anti-TSH antibody conjugated to carboxymethylamylose, an indicator reagent comprising an antibody to the .beta. chain of human chorionic gonadotropin conjugated to alk. phosphatase, a **solid phase** coated with Merquat 100 (a quaternary ammonium polymer), and dextran sulfate as blocker of nonspecific binding to the **solid phase**.

IC ICM C12Q001-00
ICS C12Q001-68; G01N033-53; G01N033-536; G01N033-537; G01N033-538; G01N033-541; G01N033-543; G01N033-544; G01N033-546; G01N033-551; G01N033-553; C11D003-07; C11D003-066

CC 9-10 (Biochemical Methods)

ST ion capture specific binding **assay**; TSH ELISA dextran sulfate

IT Analysis
(by ion-capture specific binding **assay**, polyanion conjugate with specific binding partner for)

IT Blood analysis
(chorionic gonadotropin and TSH detn. in human, by ion-capture **solid-phase** EIA)

IT Urine analysis
(phencyclidine detn. in human, by ion-capture **solid-phase** EIA)

IT Antigens
RL: ANT (Analyte); ANST (Analytical study)
(CEA (carcinoembryonic antigen), detn. of, by ion-capture **solid-phase** EIA)

IT Immunoglobulins
RL: ANT (Analyte); ANST (Analytical study)
(G, detn. of, by ion-capture **solid-phase** EIA)

IT Polyelectrolytes
(anionic, conjugates with specific **binding** partners, for **analyte** detn. by ion-capture specific binding **assay**)

IT Polyelectrolytes
(cationic, immobilized, for analyte detn. by ion-capture specific binding **assay**)

IT **Immunoassay**
(enzyme, **solid-phase** ion-capture, antibody-polyanion conjugate and immobilized polycation in)

IT Albumins, compounds
RL: ANST (Analytical study)
(reaction products, with azobenzenesulfonic acid and succinic anhydride, in human chorionic gonadotropin detn. by ion-capture **solid-phase** EIA)

IT 7440-57-5, Gold, analysis 7782-49-2, Selenium, analysis
RL: ANST (Analytical study)
(colloidal particles, monoclonal antibody-coated, in chorionic gonadotropin detn. in human urine by ion-capture **solid-phase** EIA)

IT 9002-61-3, Chorionic gonadotropin
RL: ANST (Analytical study)
(detn. of human, by **solid-phase** ion-capture EIA)

IT 58-55-9, Theophylline, analysis 6893-02-3, Triiodothyronine 20830-75-5, Digoxin
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, by ion-capture **solid-phase** EIA)

IT 57-83-0, Progesterone, analysis
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, by ion-capture **solid-phase** EIA, antibody detn. in relation to)
IT 9002-71-5, TSH
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, in blood serum of human by ion-capture **solid-phase** EIA)
IT 77-10-1, Phencyclidine
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, in urine of human by ion-capture **solid-phase** EIA)
IT 26062-79-3D, Merquat 100, immobilized 55008-57-6D, immobilized 92183-41-0D, immobilized
RL: ANST (Analytical study)
(for ion-capture **solid-phase** EIA)
IT 9004-32-4 23330-83-8 37300-21-3 60120-39-0, .beta.-Cyclodextrin sulfate
RL: ANST (Analytical study)
(immobilized polycation nonspecific blocking by, in analyte detn. by ion-capture specific binding **assay**)
IT 9005-49-6, Heparin, biological studies 9042-14-2, Dextran sulfate 9044-05-7, Carboxymethyldextran
RL: BIOL (Biological study)
(immobilized polycation nonspecific blocking by, in analyte detn. by ion-capture specific binding **assay**)
IT 12768-31-9D, Carboxymethylamylose, conjugates with monoclonal antibody
RL: ANST (Analytical study)
(in TSH detn. by ion-capture **solid-phase** EIA)
IT 9001-78-9D, Alkaline phosphatase, digoxin conjugates 20830-75-5D, conjugates with alk. phosphatase
RL: ANST (Analytical study)
(in digoxin detn. by ion-capture **solid-phase** EIA)
IT 9003-01-4D, Poly(acrylic acid), antibody conjugates 24991-23-9D, antibody conjugates 25513-46-6D, Poly(glutamic acid), antibody conjugates 25608-40-6D, Poly(aspartic acid), antibody conjugates 26063-13-8D, Poly(aspartic acid), antibody conjugates
RL: ANST (Analytical study)
(in ion-capture **solid-phase** EIA)
IT 6893-02-3D, Triiodothyronine, conjugates with alk. phosphatase 9004-32-4D, triiodothyronine conjugates
RL: ANST (Analytical study)
(in triiodothyronine detn. by ion-capture **solid-phase** EIA)
IT 107-15-3D, 1,2-Ethanediamine, **fluorescein** derivs. 2321-07-5D, **Fluorescein**, ethylenediamine derivs.
RL: ANST (Analytical study)
(poly(glutamic acid) deriv. labeling with)
IT 146572-78-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction with **fluorescein** deriv.)
IT 146615-48-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction with poly(glutamic acid), for ion-capture **solid-phase** EIA)
IT 64987-85-5D, antibody conjugates
RL: RCT (Reactant)

(reaction of, with anionically modified albumin for ion-capture **solid-phase** EIA)
IT 4044-65-9D, 1,4-Phenylenediisothiocyanate, polyl(glutamic acid) conjugates
RL: RCT (Reactant)
(reaction of, with antibody for ion-capture **solid-phase** EIA)
IT 108-30-5D, Succinic anhydride, albumin conjugates
RL: RCT (Reactant)
(reaction of, with azobenzenesulfonic acid in polyanion prepn. for ion-capture **solid-phase** EIA)
IT 2779-21-7, p-Azobenzenesulfonic acid
RL: RCT (Reactant)
(reaction of, with succinylated albumin in polyanion prepn. for ion-capture **solid-phase** EIA)

L25 ANSWER 21 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1993:142989 CAPLUS
DOCUMENT NUMBER: 118:142989
TITLE: Method and apparatus for homogeneous fluorescence measurements
INVENTOR(S): Fritzsche, Robert W.; Schlager, Kenneth J.
PATENT ASSIGNEE(S): Orbit Medical Systems, Inc., USA
SOURCE: U.S., 13 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5187106	A	19930216	US 1984-645567	19840830

AB A homogeneous fluorescent specific binding assay method for detecting the presence and concn. of .gtoreq.2 target ligands in a sample contg. interfering fluorescing species comprises (a) treating the sample with .gtoreq.2 specific binding mols., each reactive with a different target ligand and provided with a different fluorescent label having different fluorescent decay times, to form fluorescently-labeled binding mol. complexes; (b) exciting the sample with a source of exciting light to induce fluorescence in each of the complexes and interfering species; (c) measuring the decay of the fluorescence so induced and detg. its relationship to time; (d) detg. from the relationship, values for a decay time-fluorescence intensity curve for the sample; (e) locating from among the values regions of values which correspond to the fluorescent contributions of each of the complexes; (f) detg. for each region, a 1st fluorescence intensity value at time 0; and (g) comparing the 1st intensity value at time 0 for each of the complexes with an intensity value obtained on a known concn. of each of the complexes to thereby obtain the concn. of each of the target ligands. Triiodothyronine and IgG
were simultaneously detd. in human blood serum using pyrene methyl-labeled
anti-T3 and pyrene butyl-labeled anti-IgG antibodies and T3 and IgG ref. serums. The different decay times of the 2 labels allowed clear sepn. of the intensity of the T3 component from the IgG contribution. A decay time

fluorometer is described.
IC ICM G01N033-536
ICS G01N033-542
NCL 436501000
CC 9-5 (Biochemical Methods)
Section cross-reference(s): 2, 15
ST fluorescence binding **assay** homogeneous; immunofluorometric **assay** multiple antigen; triiodothyronine IgG immunofluorometric **assay**
IT Antibodies
RL: ANST (Analytical study)
(fluorescently-labeled, in homogeneous immunofluorometric **assay** for multiple antigens)
IT Blood analysis
Body fluid
Urine analysis
(multiple ligands detn. in, by homogeneous fluorescence **assay**)
IT Antigens
RL: ANST (Analytical study)
(multiple, homogeneous immunofluorometric **assay** for)
IT Ligands
RL: ANST (Analytical study)
(**multiple**, homogeneous specific **binding** fluorescence **assay** for)
IT Fluorescent substances
(with different fluorescent decay times, specific binding substances labeled with, in homogeneous specific **binding assay** for **multiple** ligands)
IT Immunoglobulins
RL: ANST (Analytical study)
(G, detn. of triiodothyronine and, in blood serum of human, by homogeneous immunofluorometric **assay**)
IT **Immunoassay**
(immunofluorometric **assay**, homogeneous, for multiple antigens, antibodies labeled with fluorescent compds. having different fluorescent decay times in)
IT 6893-02-3, Triiodothyronine
RL: ANST (Analytical study)
(detn. of IgG and, in blood serum of human, by homogeneous immunofluorometric **assay**)
IT 27577-90-8, Pyrene methyl 56142-13-3, Pyrene butyl
RL: ANST (Analytical study)
(specific binding substances labeled with, in homogeneous specific **binding assay** for **multiple** ligands)
IT 129-00-0D, Pyrene, derivs.
RL: ANST (Analytical study)
(with different fluorescent decay times, specific binding substances labeled with, in homogeneous specific **binding assay** for **multiple** ligands)

L25 ANSWER 22 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1992:52916 CAPLUS
DOCUMENT NUMBER: 116:52916
TITLE: Nucleic acid detection involving analyte capture on immobilized support and in vitro amplification
INVENTOR(S): Urdea, Michael

PATENT ASSIGNEE(S): Chiron Corp., USA
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9114788	A1	19911003	WO 1991-US1936	19910322
W: CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5200314	A	19930406	US 1990-497938	19900323
EP 521111	A1	19930107	EP 1991-908107	19910322
EP 521111	B1	19981118		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 05508074	T2	19931118	JP 1991-507589	19910322
JP 2843147	B2	19990106		
AT 173509	E	19981215	AT 1991-908107	19910322
PRIORITY APPLN. INFO.:			US 1990-497938	19900323
			WO 1991-US1936	19910322

AB A method for detecting an analyte polynucleotide comprising capture of the analyte on an immobilized **support** followed by **polymerase** chain reaction (PCR) amplification and detection is described. During the first (capture) phase, the analyte is contacted with a capture probe which hybridizes to the analyte and binds to another **binding partner**. The complex formed is contacted with an immobilized **binding partner** resulting in immobilization of the analyte. Non-bound polynucleotides are removed. During the second (amplification) phase, the analyte is contacted with 2 primers which can hybridize to the analyte or its complement and PCR is carried out. This method was applied to the detection of hepatitis B virus.
IC ICM C12Q001-68
CC 3-1 (Biochemical Genetics)
IT Polymerase chain reaction
(in nucleic acid hybridization **assay**)
IT 125421-48-9P 138509-93-0P
RL: PREP (Preparation)
(prepn. of, oligonucleotide synthesis with, nucleic acid hybridization **assay** in relation to)

L25 ANSWER 23 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1991:225216 CAPLUS
DOCUMENT NUMBER: 114:225216
TITLE: Parallel solid-phase method to determine multiple immunologically detectable substances
INVENTOR(S): Bayer, Hubert; Kirch, Peter; Kopetzki, Erhard; Klein, Christian
PATENT ASSIGNEE(S): Boehringer Mannheim G.m.b.H., Fed. Rep. Ger.
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 379216	A1	19900725	EP 1990-101095	19900119
EP 379216	B1	19940608		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL				
DE 3901638	A1	19891207	DE 1989-3901638	19890120
DE 3901638	C2	19990325		
DE 3924239	A1	19910124	DE 1989-3924239	19890721
AT 107030	E	19940615	AT 1990-101095	19900119
PRIORITY APPLN. INFO.:			DE 1989-3901638	19890120
			DE 1989-3924239	19890721
			DE 1988-3817716	19880525
			EP 1990-101095	19900119

AB A parallel solid-phase immunoassay or specific binding assay for detg. multiple analytes in a sample (e.g. multiple antibodies against different epitopes on a virus) uses (1) a specific binding partner (e.g. avidin) bound to a solid phase; (2) a series of receptors R1, each comprising a conjugate of the complementary specific binding partner (e.g. biotin) and a ligand for 1 of the analytes; and (3) a series of receptors R2, each comprising a conjugate of a ligand for 1 of the analytes and a detectable moiety (label). The ligand and label on receptors R2 may be the same for all analytes (allowing e.g. the detection of a virus in all its variants) or may be different for each analyte (allowing the detection of each analyte individually). Thus, streptavidin was coupled to bovine serum albumin via maleimidohexanoyl-N-hydroxysuccinimide and adsorbed on the surface of a polystyrene tube. In a test for antibodies to human immunodeficiency virus (HIV), the tube was incubated with .gtoreq.1 biotinylated HIV antigen and a serum or plasma sample, washed, incubated with a a sheep anti-human Ig antibody conjugated to peroxidase, washed, and incubated with a peroxidase substrate (ABTS) for photometric detection.

IC ICM G01N033-531
ICS G01N033-58; G01N033-569; G01N033-532

CC 9-10 (Biochemical Methods)
Section cross-reference(s): 15

ST **immunoassay** parallel solid phase; virus antibody **immunoassay**

IT Neoplasm, composition
(antigens of, detn. of multiple, by parallel solid-phase **immunoassay**)

IT Allergens
Antigens
Hormones
RL: ANST (Analytical study)
(detn. of multiple, by parallel solid-phase **immunoassay**)

IT Antibodies
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, by parallel solid-phase **immunoassay**)

IT Ligands
Receptors
RL: ANST (Analytical study)
(in parallel solid-phase **binding assay** for **multiple** analytes)

IT **Immunochemical analysis**

(parallel solid-phase, for multiple analyte detn.)
IT Antigens
RL: ANT (Analyte); ANST (Analytical study)
(CA 15-3, detn. of, by parallel solid-phase **immunoassay**)
IT Antigens
RL: ANT (Analyte); ANST (Analytical study)
(CEA (carcinoembryonic antigen), detn. of, by parallel solid-phase **immunoassay**)
IT Virus, animal
(hepatitis B, antibodies to, detn. of, by parallel solid-phase **immunoassay**)
IT Antigens
RL: ANT (Analyte); ANST (Analytical study)
(hepatitis B surface, detn. of, by parallel solid-phase **immunoassay**)
IT Virus, animal
(human immunodeficiency, antibodies to, detn. of, by parallel solid-phase **immunoassay**)
IT Virus, animal
(human immunodeficiency 1, antibodies to, detn. of, by parallel solid-phase **immunoassay**)
IT Microorganism
(pathogenic, detn. of multiple, by parallel solid-phase **immunoassay**)

L25 ANSWER 24 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1990:566853 CAPLUS
DOCUMENT NUMBER: 113:166853
TITLE: Multiple bandshift **assay**: rapid identification and cloning of DNA fragments containing specific protein-binding sites
AUTHOR(S): Kozmik, Zbynek; Paces, Vaclav
CORPORATE SOURCE: Inst. Mol. Genet., Prague, 166 37, Czech.
SOURCE: Gene (1990), 90(2), 287-91
CODEN: GENED6; ISSN: 0378-1119
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A new rapid method for the identification and cloning of DNA fragments contg. specific protein-binding domains is based on the common bandshift assay. Cloned DNA is digested with a restriction endonuclease recognizing a particular 4-bp sequence, an aliquot of this digest is end-labeled and used in protein binding reactions with and without protein ext. The binding reactions are then loaded onto nondenaturing polyacrylamide gel. The main portion of the digest is run in a parallel lane and serves as a source of fragments for cloning. Autoradiog. of the wet gel reveals loss in intensity of some bands from the restriction digest incubated with the protein ext. DNA fragments corresponding to these bands are cut out from the gel; DNA is eluted and cloned in the M13 vector, thus allowing rapid and simple sequencing of the inserts. The method, termed multiple bandshift assay, is esp. useful when screening relatively long DNA fragments (of several kb) for potential protein-binding domains. The procedure was used to study interaction of HeLa-cell nuclear proteins with a 5.2-kb downstream region of pseudorabies virus immediate-early gene.
CC 3-5 (Biochemical Genetics)

Section cross-reference(s): 9, 13
ST DNA binding protein bandshift **assay** cloning
IT Molecular cloning
(of DNA contg. protein-**binding** sites, **multiple** bandshift **assay** for)
IT Deoxyribonucleic acids
RL: PRP (Properties)
(protein-**binding** sites in, **multiple** bandshift **assay** for identification and cloning of)
IT Proteins, specific or class
RL: BIOL (Biological study)
(DNA-binding, cloning of DNA with sites for, multiple bandshift **assay** for)
IT Electrophoresis and Ionophoresis
(gel, for multiple bandshift **assay**, for cloning of DNA fragments contg. protein-binding sites)

L25 ANSWER 25 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1990:494368 CAPLUS
DOCUMENT NUMBER: 113:94368
TITLE: Reagents and methods for reduction of peroxidative and catalatic interference with **assays** of peroxidative activity
INVENTOR(S): Bloch, Will; Birch, David E.
PATENT ASSIGNEE(S): Cetus Corp., USA
SOURCE: PCT Int. Appl., 131 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9002202	A1	19900308	WO 1988-US2808	19880816
W: AU, DK, FI, JP, KR, NO, RO, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8823077	A1	19900323	AU 1988-23077	19880816
PRIORITY APPLN. INFO.:			WO 1988-US2808	19880816

AB Mild reagents and gentle methods for inactivating background peroxidative activity in test samples before anal. by a peroxidase-linked sp. binding assay use an org. hydroperoxide (preferably a tertiary alkyl hydroperoxide) or a combination of a nonperoxide catalase inhibitor with H2O2 or urea H peroxide, etc. Methods and kits for detecting the presence of blood or the occurrence of hemolysis in a test sample use sp. inactivating reagents or unique assay reaction kinetics to distinguish Hb and metHb from other peroxidative catalysts potentially present in the sample. Methods for stopping the peroxidative color-forming reaction in peroxidase assays comprise addn. to a solid phase, to which is attached the peroxidative catalyst and/or the chromophoric oxidn. product, of an effect amt. of a substance which permanently inactiviates the catalysts (e.g., org. hydroperoxide for Hb or met Hb or 4-chloronaphthol in combination with H2O2 or urea H peroxide for plant peroxidase). Also included is a method for the serial probing of a test sample for different

analytes in a peroxidase-linked sp. binding assay using the sp. and permanent inactivation of plant peroxidases. The effects of various reagents and conditions on different peroxidative catalysts were studied. In a study of the comparative effects of suicide substrate formulations on 6 catalysts one of the conclusions was that cumene hydroperoxide and tert-Bu hydroperoxide showed very similar suicide specificity, sparing horseradish peroxidase almost completely, activating myeloperoxidase somewhat, inactivating metmyoglobin 70-80%, and inactivating Hb and metHb 94-97%. 4-Chloronaphthol plus H2O2 (protected by NH2OH) was specific for inactivating horseradish peroxidase, destroying >99% of its activity in 11 min under temp. and concn. conditions sparing 16-20% of Hb and methHb activity and 60-70% of myeloperoxidase and hematin activity. Metmyoglobin was activated somewhat.

IC ICM C12Q001-68
ICS C12Q001-28; C12N009-99; G01N033-535; G01N033-72

CC 9-2 (Biochemical Methods)
Section cross-reference(s): 79, 80

IT Cerebrospinal fluid
Feces
Gastric juice
Synovial fluid
Urine analysis
(Hb detection in, by peroxidn. **assay**, peroxidn. catalysts sp. inactivation in)

IT Nucleic acid hybridization
(**assay** using peroxidase conjugates, peroxidase inactivation in relation to)

IT Blood analysis
(by peroxidn. **assay**, peroxidn. catalysts inactivators in)

IT Hemolysis
(detection of, by peroxidn. **assay**, peroxidn. catalysts specific inactivator in)

IT Hemoglobins
RL: ANT (Analyte); ANST (Analytical study)
(detection of, by peroxidn. **assay**, peroxidn. catalysts specific inactivator in)

IT Antibodies
Antigens
Carbohydrates and Sugars, analysis
RL: ANT (Analyte); ANST (Analytical study)
(detection of, by specific binding **assay** using peroxidase conjugates, peroxidase inactivation in)

IT Polyphosphates
RL: ANST (Analytical study)
(in indicator soln. for sp. binding **assay** using peroxidase conjugates for multiple analytes)

IT Agglutinins and Lectins
Avidins
RL: ANST (Analytical study)
(probes contg. peroxidase conjugate and, for sp. **binding assay** for **multiple** analytes, sp. peroxidase inactivation in relation to)

IT Proteins, specific or class
RL: ANST (Analytical study)

(A, probes contg. peroxidase conjugate and, for sp. **binding assay** for **multiple** analytes, sp. peroxidase inactivation in relation to)

IT Glycoproteins, specific or class
RL: ANST (Analytical study)
(G, probes contg. peroxidase conjugate and, for sp. **binding assay** for **multiple** analytes, sp. peroxidase inactivation in relation to)

IT Analysis
(biochem., by specific binding **assay** using peroxidase conjugates, peroxidn. interference decrease in)

IT **Immunochemical analysis**
(immunoperoxidase **assay**, multiple analytes sequential detection by, peroxidase inactivation in)

IT 9003-99-0, Peroxidase
RL: ANST (Analytical study)
(binding **assay** using, background peroxidative activity redn. in)

IT 9003-53-6D, carboxylate and sulfate and sulfonate groups-modified
9004-32-4, Carboxymethyl cellulose 9032-46-6, Sulfoethyl cellulose
9042-14-2, Dextran sulfate 25086-72-0D, sulfonated, sodium salt
RL: ANST (Analytical study)
(in indicator soln. for sp. binding **assay** using peroxidase conjugates for multiple analytes)

IT 9003-99-0D, Peroxidase, conjugates
RL: PROC (Process)
(in sp. **binding assay** for **multiple** analytes, sp. inactivation of)

IT 58-85-5, Biotin 2321-07-5, Fluorescein 9013-20-1, Streptavidin
RL: ANST (Analytical study)
(probes contg. peroxidase conjugate and, for sp. **binding assay** for **multiple** analytes, sp. peroxidase inactivation in relation to)

L25 ANSWER 26 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1990:474281 CAPLUS
DOCUMENT NUMBER: 113:74281
TITLE: Cascade enzyme **immunoassay** method and kit using multiple binding reactions
INVENTOR(S): Mapes, James P.; Hoke, Randal A.
PATENT ASSIGNEE(S): Becton, Dickinson and Co., USA
SOURCE: U.S., 16 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4904583	A	19900227	US 1987-53896	19870526

AB The title method includes contacting under binding conditions a liq. suspected of contg. an analyte, an immobilized antianalyte, and an enzyme-conjugated tracer. A bound fraction is sepd. from the liq. and incubated in a 2nd liq. with a masked ligand. The masked ligand is converted by the enzyme on the bound fraction to give free ligand which binds to an antiligand. A signal system, e.g. a signal enzyme and

substrate or a label-load vesicle and vesicle lysing agent, is added to generate a signal used to detect or det. the analyte in the liq. A kit for performing the method of the invention is described. The assay method of the invention provides a sensitivity increase of .gtoreq.100-fold in the detn. of analytes present in biol. fluids in very low concns. Cascade assays for detn. of adenovirus and of herpes simplex virus (2 different assay configurations) are described.

IC ICM G01N033-53
ICS G01N033-543; G01N033-537; G01N033-532
NCL 435007000
CC 9-10 (Biochemical Methods)
ST cascade enzyme **immunoassay multiple binding** reaction; adenovirus detn cascade enzyme **immunoassay**; herpes simplex virus detection cascade EIA
IT Complement
RL: ANST (Analytical study)
(as vesicle lysing agent, in cascade enzyme **immunoassay**)
IT Antibodies
Antigens
Haptens
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, cascade enzyme **immunoassay** for)
IT Dyes
(in cascade enzyme **immunoassay**)
IT Double bond
(isomerable, ligand masked with, in cascade enzyme **immunoassay**)
IT Acyl groups
(ligand masked with, in cascade enzyme **immunoassay**)
IT Peptides, uses and miscellaneous
Phosphates, uses and miscellaneous
RL: USES (Uses)
(ligand masked with, in cascade enzyme **immunoassay**)
IT Pharmaceuticals
(masked, in cascade enzyme **immunoassay**)
IT Coenzymes
Hormones
Ligands
RL: ANST (Analytical study)
(masked, in cascade enzyme **immunoassay**)
IT Vitamins
RL: USES (Uses)
(masked, in cascade enzyme **immunoassay**)
IT Steroids, uses and miscellaneous
RL: USES (Uses)
(masked, in cascade enzyme **immunoassay**)
IT Virus, animal
(adeno-, detn. of, cascade enzyme **immunoassay** for)
IT Functional groups
(carbamoyl, ligand masked with, in cascade enzyme **immunoassay**)
IT **Immunochemical analysis**
(enzyme **immunoassay**, cascade, with masked ligand)
IT **Immunochemical analysis**
(fluorescence enzyme **immunoassay**, cascade, with masked

ligand)
IT Proteins, specific or class
RL: ANST (Analytical study)
(fusion products, of virus, as vesicle lysing agent, in cascade enzyme **immunoassay**)
IT Antibodies
RL: ANST (Analytical study)
(monoclonal, to adenovirus, conjugates with esterase, in cascade enzyme **immunoassay** for adenovirus)
IT Membranes
(vesicular, signal enzyme encapsulated in, in cascade enzyme **immunoassay**)
IT 2321-07-5, Fluorescein
RL: ANST (Analytical study)
(antibodies to, in cascade enzyme **immunoassay** for adenovirus detn.)
IT 9001-92-7, Protease 9013-05-2, Phosphatase 9013-19-8, Isomerase 9013-79-0, Esterase 9027-41-2, Hydrolase 9074-90-2, Cyclase
RL: ANST (Analytical study)
(as unmasking enzyme, in cascade enzyme **immunoassay**)
IT 37231-28-0, Melittin
RL: ANST (Analytical study)
(as vesicle lysing agent, in cascade enzyme **immunoassay**)
IT 2321-07-5D, Fluorescein, peroxidase conjugates 7298-65-9, Fluorescein dibutyrate 9003-99-0D, Peroxidase, fluorescein conjugates 9013-79-0D, Esterase, conjugates with monoclonal antibody to adenovirus
RL: ANST (Analytical study)
(in cascade enzyme **immunoassay** for adenovirus detn.)
IT 39324-30-6, Pepstatin
RL: ANST (Analytical study)
(masked, in cascade enzyme **immunoassay**)
IT 51-48-9, Thyroxine, uses and miscellaneous 58-85-5, Biotin 59-30-3, uses and miscellaneous 60-92-4 68-19-9, Vitamin B12 83-88-5 83-88-5, Riboflavin, uses and miscellaneous
RL: USES (Uses)
(masked, in cascade enzyme **immunoassay**)

L25 ANSWER 27 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1990:51813 CAPLUS
DOCUMENT NUMBER: 112:51813
TITLE: Hapten determination method, its components, its use, and kits including it
INVENTOR(S): Self, Colin Henry
PATENT ASSIGNEE(S): Cambridge Patent Developments Ltd., UK
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8905453	A1	19890615	WO 1988-GB1033	19881123

W: AU, JP, US
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE

AU 8827263	A1	19890705	AU 1988-27263	19881123
AU 625815	B2	19920716		
GB 2214295	A1	19890831	GB 1988-27347	19881123
GB 2214295	B2	19920429		
EP 396570	A1	19901114	EP 1988-910087	19881123
EP 396570	B1	19940720		
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
JP 03504162	T2	19910912	JP 1989-505575	19881123
US 5468651	A	19951121	US 1994-276766	19940718
US 5641690	A	19970624	US 1995-560811	19951120
PRIORITY APPLN. INFO.:			GB 1987-27898	19871128
			GB 1988-2097	19880130
			WO 1988-GB1033	19881123
			US 1990-465107	19900216
			US 1994-276766	19940718

AB A method for detg. a hapten comprises (1) binding the hapten to a binding partner, e.g. a polyclonal or monoclonal antibody; (2) binding unbound binding partner to a secondary binding partner, e.g. a macromol. deriv. of the hapten; (3) binding the hapten-bound binding partner to an antibody which does not bind to binding partner-bound secondary binding partner; and (4) detg. the amt. of antibody bound to the binding partner. Either binding partner or antibody may be immobilized or labeled. Kits employing the method are described. Thus, a monoclonal antibody was obtained against theophylline and a portion labeled with alk. phosphatase. A monoclonal anti-idiotypic antibody was raised against the anti-theophylline monoclonal antibody. A selective monoclonal antibody was raised against the anti-theophylline monoclonal antibody-theophylline complex. A theophylline assay was then conducted by binding the selective monoclonal antibody onto solid surfaces and exposing these to labeled anti-theophylline antibody exposed to a range of theophylline std. prepns., or to a sample to be detd., and the anti-idiotypic antibody. The amt. of alk. phosphatase bound specifically to the surfaces was then detd. and the concn. of theophylline calcd. (no data). Assays for hydrocortisone, gentamycin, etc. are also described.

IC ICM G01N033-53
ICS G01N033-543; G01N033-577

CC 9-10 (Biochemical Methods)
Section cross-reference(s): 1

ST hapten detn **immunoassay**; theophylline detn monoclonal antibody **immunoassay**

IT Haptens
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, **multiple binding partner** method for)

IT Antibodies
RL: ANST (Analytical study)
(in **multiple binding partner** method for hapten detn.)

IT Immobilization, biochemical
(of binding partner or antibody, in hapten detn. with **multiple binding partners**)

IT Albumins, compounds

RL: ANST (Analytical study)
(conjugates, with progesterone and hydrocortisone and estradiol, in monoclonal antibody prodn. for **multiple binding partner immunoassay**)

IT **Immunochemical analysis**
(**immunoassay**, with **multiple binding partners**)

IT Antibodies
RL: ANST (Analytical study)
(monoclonal, in **multiple binding partner** method for hapten detn.)

IT 1972-08-3D, carboxymethyloxime deriv., bovine serum albumin conjugate
RL: ANST (Analytical study)
(as secondary binding partner, in THC detn. by **multiple binding partner immunoassay**)

IT 35048-47-6D, bovine serum albumin conjugate
RL: ANST (Analytical study)
(as secondary binding partner, in estradiol detn. by **multiple binding partner immunoassay**)

IT 43188-86-9D, bovine serum albumin conjugate
RL: ANST (Analytical study)
(as secondary binding partner, in hydrocortisone detn. by **multiple binding partner immunoassay**)

IT 50909-89-2D, Progesterone 3-(O-carboxymethyl)oxime, bovine serum albumin conjugate
RL: ANST (Analytical study)
(as secondary binding partner, in progesterone detn. by **multiple binding partner immunoassay**)

IT 50-23-7, Hydrocortisone 50-28-2, Estradiol, biological studies 57-83-0, Progesterone, analysis 58-55-9, analysis 1403-66-3, Gentamycin 1972-08-3, THC
RL: PROC (Process)
(monoclonal antibody to and detn. of, in **multiple binding partner immunoassay**)

L25 ANSWER 28 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1989:611547 CAPLUS
DOCUMENT NUMBER: 111:211547
TITLE: A method, device, and kit for determination of ambient concentration of several analytes
INVENTOR(S): Ekins, Roger Philip
PATENT ASSIGNEE(S): UK
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8901157	A1	19890209	WO 1988-GB649	19880805

W: AT, AU, BR, CH, DE, DK, FI, GB, HU, JP, KR, NL, NO, SE, SU, US
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE

EP 304202	A1	19890222	EP 1988-307273	19880805
EP 304202	B1	19920708		
R: ES, GR				
AU 8822534	A1	19890301	AU 1988-22534	19880805
AU 625052	B2	19920702		
EP 375700	A1	19900704	EP 1988-906976	19880805
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
BR 8807644	A	19900807	BR 1988-7644	19880805
HU 54239	A2	19910128	HU 1988-4720	19880805
JP 03503081	T2	19910711	JP 1988-506680	19880805
JP 2562194	B2	19961211		
AT 78101	E	19920715	AT 1988-307273	19880805
ES 2034245	T3	19930401	ES 1988-307273	19880805
NO 9000534	A	19900205	NO 1990-534	19900205
NO 177205	B	19950424		
NO 177205	C	19950802		
DK 9000293	A	19900405	DK 1990-293	19900205
DK 164944	B	19920914		
DK 164944	C	19930201		
FI 92110	B	19940615	FI 1990-557	19900205
FI 92110	C	19940926		
PRIORITY APPLN. INFO.:			GB 1987-558	19870806
			GB 1988-3000	19880210
			EP 1988-307273	19880805
			WO 1988-GB649	19880805

AB A method for detg. the ambient concns. of a plurality of analytes in a liq. sample of vol. V L, comprises loading different binding agents, each being capable of reversibly binding an analyte which is or may be present in the liq. sample and is specific for that analyte as compared to the other components of the liq. sample, onto a support at spaced-apart locations such that each location has .ltoreq.0.1, preferably .ltoreq.0.01 V/K, moles of a single binding agent, where K L/mol is the equil. const. of the binding agent for the analyte; contacting the loaded support with the liq. sample to be analyzed, such that each of the spaced-apart locations is contacted in the same operation with the liq. sample, the amt. of liq. used in the sample being such that only an insignificant proportion of any analyte present in the liq. sample becomes bound to the binding agent specific for it, and measuring a parameter representative of the fractional occupancy by the analytes of the binding agents at the spaced apart locations by a competitive or noncompetitive assay technique using a site-recognition reagent for each binding agent capable of recognizing either the unfilled binding sites or the filled binding sites on the binding agent, said site-recognition reagent being labeled with a marker enabling the amt. of said reagent in the particular location to be measured. A device and kit for use in the method are also provided. A microtiter plate was prepd. contg. spots of Texas Red-labeled antibodies to thyroxine, TSH, and triiodothyronine in each of the wells. The plate was used to measure thyroxine, TSH, and triiodothyronine levels in serum from human patients. The developing antibody for the TSH assay was a 2nd antibody labeled with FITC. The site recognition reagents for the other 2 assays were thyroxine and triiodothyronine coupled to poly-lysine and labeled with FITC. The results correlated well with those obtained by other methods.

IC ICM G01N033-543

ICA G01N033-78; G01N033-76
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 2
ST **binding assay multiple** analyte;
immunoassay thyroxine TSH triiodothyronine blood
IT Blood analysis
(TSH and T3 and T4 detn. in human, by **immunoassay** for multiple analytes)
IT Urine analysis
(chorionic gonadotropin and FSH detn. in human, by **immunoassay** for multiple analytes)
IT Antibodies
RL: ANST (Analytical study)
(labeled, in **immunoassays** for multiple analytes)
IT Antibodies
RL: ANST (Analytical study)
(monoclonal, labeled, in **immunoassays** for multiple analytes)
IT Lymphokines and Cytokines
RL: ANT (Analyte); ANST (Analytical study)
(tumor necrosis factor, detn. of, by **immunoassay** for multiple analytes)
IT 51-48-9, Thyroxine, analysis 6893-02-3, Triiodothyronine 9002-61-3, Chorionic gonadotropin 9002-68-0, FSH 9002-71-5, TSH
RL: ANST (Analytical study)
(detn. of human, by **immunoassay** for multiple analytes)
IT 25104-18-1D, Poly(lysine), FITC and T4 and T3 conjugates 27072-45-3D, FITC, antibody conjugates 82354-19-6D, Texas Red, antibody conjugates, immobilized
RL: ANST (Analytical study)
(in **immunoassay** for multiple analytes)

L25 ANSWER 29 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1988:434863 CAPLUS
DOCUMENT NUMBER: 109:34863
TITLE: Methods for providing internal references for use in analyte receptor **assays**
INVENTOR(S): Valkirs, Gunars Edward; Anderson, Richard Ray
PATENT ASSIGNEE(S): Hybritech, Inc., USA
SOURCE: Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 253464	A1	19880120	EP 1987-302403	19870320
EP 253464	B1	19920527		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 62231168	A2	19871009	JP 1987-67695	19870319
AU 8770447	A1	19870924	AU 1987-70447	19870320
CA 1286987	A1	19910730	CA 1987-532565	19870320
AT 76689	E	19920615	AT 1987-302403	19870320
ES 2042550	T3	19931216	ES 1987-302403	19870320
AU 9177274	A1	19910926	AU 1991-77274	19910522
AU 658566	B2	19950427		

PRIORITY APPLN. INFO.: US 1986-842611 19860321
EP 1987-302403 19870320

AB A method is disclosed for providing internal ref. for use in an analyte-receptor assay, for the detn. of a target analyte in a sample. The assay uses a signal producing system and an analyte receptor capable of **binding** the target **analyte** at a discrete test zone on a **solid phase**, in an amt. directly proportional to the amt. of target analyte in the sample. The method comprises binding a ref. receptor, selected to bind with an analyte receptor conjugate capable of complexation with the target analyte, at a discrete ref. zone on a **solid phase**. The ref. receptor is selected such that the rates of **binding** of the **analyte** receptor conjugate to the ref. receptor and to the target analyte are directly proportional to the amts. of ref. receptor at the ref. zone and target analyte bound at the test zone on the **solid phase**, and the rate consts. are substantially equiv. The internal ref. permits the detn. of unknown analyte concns. substantially independent of normal variations in assay conditions such as time, temp., reagent concns., and nonspecific interfering substances in the sample. It also reflects changes in specific binding properties of labeled receptors used in the assay. Anti-LH antibody was adsorbed to latex microspheres, and a suspension of the microspheres was deposited on a porous nylon membrane **solid support** to create a discrete test zone. Ref. receptor in the form of an antibody to alk. phosphatase (I) was dild. with bovine serum, adsorbed on latex microspheres, and deposited on the support to create a discrete ref. zone. The dilns. of anti-I antibody were selected such that the rate of binding of a conjugate of I with anti-LH antibody to the ref. zone was directly proportional to the amt. of anti-I in the ref. zone and such that the rate const. for this binding was independent of the amt. of anti-I. The rate consts. for binding were independent of the amt. of anti-I. The rate consts. for binding of an anti-LH antibody-I conjugate to an LH-anti-LH complex in the test zone and to immobilized anti-I antibody in the ref. zone (detd. as a function of the amt. of LH immobilized by anti-LH antibody in the test zone and as a function of the amt. of anti-I antibody in the ref. zone, resp.) were substantially equiv. in all cases. They were also pseudo-1st order, so that they remained substantially equiv. independent of variations of incubation time and conjugate concn.

IC ICM G01N033-543

CC 9-2 (Biochemical Methods)

ST analyte receptor **assay** internal ref; LH **immunoassay** internal ref

IT Analysis
(by receptor binding **assay**, internal refs. for)

IT Chelating agents
(conjugates, immobilized receptors for, as internal stds. in receptor binding **assay**)

IT Enzymes
Haptens
RL: ANST (Analytical study)
(immobilized antibodies to, as internal stds. for receptor binding **assays**)

IT **Immunochemical analysis**

(internal refs. for)
IT Immunoglobulins
RL: ANT (Analyte); ANST (Analytical study)
(E, detn. of, by receptor binding **assay**, internal stds. for)
IT Ligands
RL: ANST (Analytical study)
(conjugated, immobilized receptors for, as internal stds. in receptor binding **assay**)
IT Albumins, compounds
Proteins, specific or class
RL: ANST (Analytical study)
(conjugates, immobilized receptors for, as internal refs. in receptor binding **assays**)
IT Antigens
RL: ANT (Analyte); ANST (Analytical study)
(hepatitis B surface, detn. of, by receptor binding **assay**, internal stds. for)
IT Antibodies
Receptors
(immobilized, as internal refs. for receptor binding **assays**)
IT Antibodies
RL: ANST (Analytical study)
(monoclonal, immobilized, as internal stds. in receptor binding **assays**)
IT Nucleotides, polymers
RL: ANST (Analytical study)
(oligo-, conjugates, immobilized receptors for, as internal refs. in receptor binding **assays**)
IT Fetoproteins
RL: ANT (Analyte); ANST (Analytical study)
(.alpha.-, detn. of, by receptor binding **assay**, internal stds. for)
IT 2321-07-5D, **Fluorescein**, conjugates 9001-00-7D, Bromelin, conjugates 9001-63-2D, Lysozyme, conjugates 9001-78-9 9003-99-0D, Peroxidase, conjugates
RL: ANST (Analytical study)
(immobilized receptors for, as internal stds. in receptor binding **assays**)
IT 9001-15-4
RL: ANST (Analytical study)
(isoenzymes, detn. of, by receptor binding **assay**, internal stds. for)

L25 ANSWER 30 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1986:221657 CAPLUS
DOCUMENT NUMBER: 104:221657
TITLE: Diagnostic test methods
INVENTOR(S): Hadfield, Susan Gaye; Norrington, Franklin Edward Anthony
PATENT ASSIGNEE(S): Wellcome Foundation Ltd., UK
SOURCE: Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 174195	A1	19860312	EP 1985-306302	19850905
EP 174195	B1	19910807		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4745075	A	19880517	US 1985-769597	19850826
DK 8504050	A	19860307	DK 1985-4050	19850905
DK 163384	B	19920224		
DK 163384	C	19920713		
AU 8547118	A1	19860313	AU 1985-47118	19850905
AU 601672	B2	19900920		
JP 61076958	A2	19860419	JP 1985-196856	19850905
HU 38730	A2	19860630	HU 1985-3355	19850905
HU 196263	B	19881028		
ZA 8506820	A	19870429	ZA 1985-6820	19850905
CA 1258625	A1	19890822	CA 1985-490036	19850905
IL 76307	A1	19900429	IL 1985-76307	19850905
AT 66073	E	19910815	AT 1985-306302	19850905
US 4960713	A	19901002	US 1988-160148	19880225
US 4960714	A	19901002	US 1988-160149	19880225
US 4960715	A	19901002	US 1988-161014	19880225
PRIORITY APPLN. INFO.:			GB 1984-22512	19840906
			GB 1985-17477	19850710
			US 1985-769597	19850826
			EP 1985-306302	19850905

AB An agglutination method is described for the simultaneous detection of a ligand or group of ligands in a medium. The method comprises mixing the medium with a reagent contg. .gtoreq.2 insol. colored substances (e.g., latex). Each colored substance is attached to a specific binding partner of a ligand and can form a distinctly colored agglutinate in the presence of the corresponding ligand. For example, red, blue, and green latexes were coated with antibody to Salmonella paratyphi A, S. thyphimurium, and S. newport, resp., and mixed together in equal proportions. The resulting brown latex was mixed with the bacterial suspensions. Suspensions having S. paratyphi A, S. typhimurium, and S. newport singly produced a red agglutinate in a turquoise soln., a blue agglutinate in an orange soln., and a green agglutinate in a purple soln., resp. However, a control saline gave a brown homogeneous suspension.

IC ICM G01N033-545
ICS G01N033-532

CC 9-2 (Biochemical Methods)
Section cross-reference(s): 15

IT Bacteria
Parasite
Virus, animal
(detection of, by agglutination **assay** with multiple colored latexes)

IT Agglutinins and Lectins
Antibodies
Antigens
Avidins
Haptens
Ligands
Carbohydrates and Sugars, analysis
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, by specific **binding assay** with

multiple colored latexes)
IT Proteins
RL: ANT (Analyte); ANST (Analytical study)
(A, detn. of, by specific **binding assay** with **multiple** colored latexes)
IT Proteins
RL: ANT (Analyte); ANST (Analytical study)
(A*, detn. of, by specific **binding assay** with **multiple** colored latexes)
IT Immunoglobulins
RL: ANST (Analytical study)
(G, Fc fragment of, detn. of, by specific **binding assay** with **multiple** colored latexes)
IT **Immunochemical analysis**
(agglutination test, with multiple colored latexes)
IT 58-85-5
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, by specific **binding assay** with **multiple** colored latexes)

L25 ANSWER 31 OF 31 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1983:65633 CAPLUS
DOCUMENT NUMBER: 98:65633
TITLE: Comparison of centrifugation and filtration **assays** of ligand **binding**: do **multiple** GABA receptive sites exist?
AUTHOR(S): Patel, Shutish C.; Peck, Ernest J., Jr.
CORPORATE SOURCE: Dep. Neurol., Baylor Coll. Med., Houston, TX, USA
SOURCE: J. Neurosci. Res. (1982), 8(4), 603-11
CODEN: JNREDK; ISSN: 0360-4012
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Filtration and microcentrifugation procedures for the sepn. of bound and free ligand are compared for the assay of GABA [56-12-2] receptors. [3H]GABA and [3H]muscimol are employed as ligands in satn. analyses of synaptic plasma membrane and junctional complex prepns. A direct comparison of the 2 methods, applied to 2 membrane prepns. and 2 ligands, reveals that nonspecific binding is consistently higher with the microcentrifugation procedure. Anal. of the binding data yields essentially the same consts. in either case; however, the filtration assay provides a better est. in all cases.
CC 2-1 (Mammalian Hormones)

=>